THE

MONTHLY EPITOME

FOR NOVEMBER, 1804.

XCVII. ORGANIC REMAINS *of a* FORMER WORLD. *An Examination of the Mineralised Remains of the Vegetables and Animals of the Antediluvian World, generally termed Extraneous Fossils. By* JAMES PARKINSON, *Hoxton. The First volume, containing the Vegetable Kingdom. With twelve elegant plates. Quarto. 471 pages. 2l. 2s. Robson*

THIS truly elaborate work (dedicated to Wakelin Welch, Esq. Lympſton, Devonſhire,) conſiſts of *forty-nine letters*, written in a perſpicuous and manly ſtyle, and replete with curious information. Its general nature will be explained by its *Preface*.

"Impelled by that eager curioſity which a view of the remains of a former world muſt excite in every inquiſitive mind, the writer of the following ſheets long and earneſtly ſought for information reſpecting theſe wonderful ſubſtances, from every ſource to which he could obtain acceſs. But conſiderable impediments to his inquiries aroſe from his being able to derive ſo little aid, ſpeaking comparatively, from ſuch works as have been publiſhed in this country; ſince although theſe ſubjects have engaged the attention of ſeveral gentlemen, well qualified for their inveſtigation, yet the publications with which they have favoured the world, have chiefly been detached eſſays on ſome particular foſſils only. He, therefore, found himſelf under the neceſſity of having continual recourſe to the more general obſervations, which are to be found in the writings of the learned of Italy, France, and Germany; the valuable collection of which, in the Britiſh Muſeum, he was happy in being enabled to conſult, with all the advantages which the kindneſs of the officers of that noble inſtitution could yield.

"Conſidering that, as ſimilar difficulties muſt occur to others, a publication would be acceptable, which ſhould compriſe, in the general hiſtory of theſe bodies, the more important obſervations and opinions of preceding writers, whether foreign or domeſtic, he was therefore diſpoſed to take on himſelf the taſk of accompliſhing, to the beſt of his abilities, a work of that deſcription. Numerous difficulties, indeed, offered themſelves to his apprehenſions; but theſe, he truſted, might yield to an almoſt enthuſiaſtic fondneſs for theſe purſuits. Many errors and defects, he feared, might obtrude themſelves on the eyes of the diſcerning critic; but theſe, he hoped, might, in ſome meaſure, be compenſated for, by the peculiar information which would reſult from the frequent examination of a tolerably large and ſyſtematic cabinet, obtained from the collections of Mr. Strange, Lord Donegal, and Mons. Calonne.

"The kind encouragement of his ſcientific friends prompted him to apply himſelf to the taſk, but the doubts and heſitations of thoſe, moſt in the habits of eſtimating the ſucceſs of the offſpring of the preſs, almoſt induced

him to relinquiſh his propoſed intention. His arguments in favour of the attempt, derived from the circumſtance of the publications on this ſubject being ſo very few, were powerfully rebutted by the inference, that there were therefore but few readers; and, conſequently, but a ſmall demand could be expected. Partiality, however, to the project he had formed, and a conviction that ample ſupport might be obtained, were the attention of the public fairly called to the wonders which the ſtudy of oryctology diſcovers, made him reſolve on the attempt.

"But, aware of the ſmall number of thoſe who, at preſent, make this ſcience their study, he feared that a dry, ſtrictly ſcientific, work might not meet with a ſale, proportioned to the expenſe of the undertaking: he therefore conſidered it to be neceſſary to adapt it, as much as poſſible, to readers in general. Another conſideration alſo influenced him to this—he thereby hoped to lead thoſe to the ſtudy of this part of Nature's works, to whom, as yet, they might be unknown. The epiſtolary form, from the familiarity of ſtyle which it admits, was therefore adopted; eſpecially ſince it yielded the opportunity of introducing ſuch a portion of introductory matter, as might ſecure the comprehending of the diſcuſſion by thoſe to whom it might be, in a great meaſure, new. In doing this he was, however, aware that he was treſpaſſing on thoſe who were already informed on theſe ſubjects; but, reckoning on the complacency and liberality with which men of true learning promote the diffuſion of knowledge, he conſidered their excuſe as already obtained, and no longer viewed this as an objection.—Gratitude directs, that he ſhould declare how much he is himſelf indebted to the prevalence of this generous diſpoſition. To Dr. Gray, Secretary of the Royal Society, he is under inexpreſſible obligations for his ready aſſiſtance on many occaſions, as well as for the kind facilities he has indulged him with, during his examinations of the numerous valuable ſpecimens, contained in that department of the Britiſh Muſeum which he ſo ably ſuperintends. To Dr. Shaw he is alſo obliged for ſimilar attentions. To Charles Hawkins, Eſq.; William Long, Eſq.; George Chandler, Eſq.; Sir Charles Blick; John Heaviſide, Eſq.; Sir William Blizard; and Henry Cline, Eſq.; the Curators of the Hunterian Muſeum, for like indulgences whilſt inſpecting that admirable collection. Other obligations to that friend of ſcience, Sir Joſeph Banks, to Dr. James Edward Smith, Preſident of the Linnean Society, W. H. Pepys, Eſq. and other gentlemen, will be fully acknowledged in the body of the work.

"That the matter of the preſent volume will be found highly intereſting is confidently hoped; but when the vaſt variety of the animal kingdom is conſidered, it is not too much to promiſe, that the ſubſequent parts of this work will far exceed, in this reſpect, the preſent; and cannot fail to yield to the admirers of Nature's works conſiderable gratification."

We inſert the two firſt letters, which will give the reader ſome idea of the pleaſing manner in which the work is executed:

LETTER I.

"*Rational application of wealth and leiſure—ſnake-ſtones—fairies changed to ſnakes—fairies' nightcaps—bones of giants—thunderbolts.*

"I have long been of opinion, that a conſiderable portion of wealth; the fruit of anxious and laborious exertions, would yield, comparatively, but little enjoyment; unleſs, during the time devoted to its acquirement, care had been taken to fill up ſome of the leiſure hours, which buſineſs could ſpare, with ſuch amuſements as would form and cultivate a taſte for truly rational pleaſures. I am now convinced, that unleſs this be done, wealth and leiſure, inſtead of producing to the man of buſineſs the completion of his happineſs, will frequently prove to be the ſource of perpetual torment. The mind, deprived of its uſual entertainment, and not trained for the adoption of any new mode of exerciſe, either lapſes into the dreadful torpor of hypochondriaciſm; or ſeeks to obtain a temporary gratification from purſuits, unworthy from their frivolity, or from their vicious tendencies, to be adopted by a being endowed with reaſon.

"I have lived long enough, to have repeatedly witneſſed ſimilar terminations of the dreams of happineſs, which have deluded thoſe men of the world; who, intent only on the acquiſition of money, have ſupplied their minds with ſo little information, that they poſſeſſed not the means of uſing, as a bleſſing, the hardly-earned wages of a life of care.

"Influenced by ſuch obſervations, and aware of the neceſſity of obtaining ſuch reſources, I have, therefore, always allotted a ſmall portion of my time to ſuch purſuits, as have, at leaſt, excited a diſpoſition to ſcientific reſearch, and an enthuſiaſtic admiration of the beauties of nature. With my mind thus furniſhed, I have ventured to avail myſelf of the opportunity, which my little fortune affords me; and have, I truſt, quitted the buſy part of the world for ever.

"In purſuance of a plan, on which I had long determined, of viſiting the moſt intereſting parts of this iſland, I quitted London, laſt week, with my daughter, accompanied by our old friend WILTON, whoſe lively manners, as you well know, render him an excellent companion. But he has made himſelf highly eſtimable to us on another account: his reſolute ſcepticiſm, with reſpect to the more rational; and his ſubmiſſive credulity, as to the more popular explanations of ſuch natural phenomena, as are beyond the reach of his underſtanding, are frequently productive of remarks, ſo full of quaintneſs and of humour, as to render them, in the higheſt degree, amuſing.

"Our firſt day's journey was not completed, before I diſcovered, that the little knowledge, which I had obtained, was inſufficient to enable me to form, even, a conjecture, reſpecting the origin of the very firſt object, which particularly attracted our attention. We were within about ten or twelve miles of Oxford, when Wilton, looking out of the window of the chaiſe, exclaimed, 'Well, I never ſaw roads mended with ſuch materials as theſe before!' This, of courſe, drew my attention to the ſame object, which had ſo ſtrongly engaged his; and I am confident, that the aſtoniſhment excited in my mind was but little, if at all, leſs than that which poſſeſſed our friend; when I beheld a labouring man breaking to pieces, with a large hammer, a ſtone nearly circular, half as large as the fore-wheel of our chaiſe, and bearing the exact form of a ſerpent cloſely coiled up. Curioſity prompted me to ſtop the chaiſe, and to aſk the man the name of the ſtone, and where it came from. 'This ſtone, ſir,' ſays he, 'is a ſnake ſtone, and comes from a pit in yonder field; where there are thouſands of them.' We all alighted, and with ſurpriſe examined ſome of the ſame ſpecies of ſtones, which he had not yet broken; and which, though evidently bearing the form of ſome ſtrange animal, were undoubtedly formed entirely of ſtone.

"As we ſauntered along, the chaiſe following us, we came to a neat, though a ſmall houſe, on the road ſide; which a ſign, ſtuck in the hedge, on the oppoſite ſide of the road, taught us was a houſe of public entertainment. Hoping to gain ſome further information, reſpecting that which had ſo ſtrongly attracted our notice, we entered this, literally, hedge ale-houſe. But when introduced into a very neat room; the caſement of which, ſurrounded by roſes and honey-ſuckles in full bloom, opened into a garden, rendered charming by the wild luxuriancy and profuſion, with which its various productions diſplayed themſelves to our view; we had very little heſitation in determining to ſtop, and partake of ſuch refreſhments, as our cottage would yield. Whilſt theſe were preparing, WILTON, who was examining the furniture of the old oaken chimney-piece, ſaid, 'Well, if the object of travelling is to behold novelties, ſurely this country will yield that gratification in the higheſt degree; for among the various things with which this mantle-piece is ornamented, there is not one, of which, I have ever ſeen its like.' They now paſſed under my examination, but with equal ill ſucceſs: for neither had I ever beheld any thing ſimilar; nor could I form any opinion reſpecting them.

"Whilſt we were thus engaged, our landlady made her appearance; and from her we learnt, that this was her *collection of curioſities*, made in

the neighbouring parts of the country. On our requeſting ſome information reſpecting them, ſhe very readily proceeded to communicate to us all the knowledge of them which ſhe poſſeſſed. Taking up a ſtone, reſembling thoſe which we had ſeen in the road, but much ſmaller, 'This,' ſaid ſhe, 'is a petrified ſnake, with which this part of the country abounds. Theſe were,' continued ſhe, 'fairies, and once the inhabitants of theſe parts, who for their crimes were changed, firſt into ſnakes, and then into ſtones. Here,' ſaid ſhe, ſhewing us a ſtone of a conical form, 'is one of the *fairies' nightcaps*, now alſo become ſtone. Do, madam,' ſaid ſhe, addreſſing Emma, 'pray obſerve; is it poſſible that lace-work, ſo beautiful as this, ſhould ever be worked by human hands? This,' ſaid ſhe, 'and this, are pieces of the *bones of giants*; who came to live here, when the race of fairies was deſtroyed.' Theſe bones, ſhe informed us, were frequently dug up in ſeveral parts of the country; as well as innumerable *thunderbolts*: ſome of which ſhe alſo ſhewed us; ſtating, that theſe were the very thunderbolts with which theſe people were, in their turn, alſo deſtroyed.

"We all liſtened attentively to our hoſteſs's diſcourſe; but on my ſmiling, when ſhe withdrew, at the romantic account we had received, WILTON ſtrenuouſly defended our good lady's narration; and declared, that, in his opinion, it was not without a moderate ſhare of probability. On our landlady again entering the room, I did not indeed venture to offer any doubt of the hiſtory ſhe had delivered; I only requeſted to know, whether ſhe knew of any larger collection of the ſame kind? 'To be ſure,' ſaid ſhe; 'our univerſity has a muſeum compoſed entirely of this kind of curioſities; and if you be going through Oxford, it will, I dare ſay, be well worth your while to take a view of them.'

"When we had finiſhed our refreſhment, we left our kindly communicative hoſteſs; but not, as you might ſuppoſe, with any intention of immediately viſiting the Muſeum of the Univerſity. On the contrary, we were aware, that, without ſome previous knowledge of the objects which are there exhibited, the examination of them could not yield much ſatisfaction; but would ſerve, merely, to excite that curioſity which it was not able to gratify. We have therefore ſettled it, that our viſit to the Muſeum ſhall be deferred, until we are enabled to view its intereſting contents with that ſatisfaction which can only be yielded when we poſſeſs ſome knowledge of the objects we contemplate.

"Thus, at our very outſet, have I experienced a conſiderable diſappointment. The objects I have already ſeen; and which I have reaſon to expect I ſhall frequently meet with, have convinced me, that I am totally ignorant of the ſcience which teaches us their natural hiſtory; and alſo that, without this knowledge, the pleaſure of my journeys muſt be very much diminiſhed. How mortifying will it be to have objects preſented daily to my view, whoſe form alone renders them highly intereſting; and whoſe hiſtory is moſt probably fraught with entertainment; and to find myſelf ſo totally ignorant of their origin, as not even to know in what claſs of nature's works to place them!

"You, I know, have long made this branch of natural hiſtory your particular ſtudy: and I have been informed, that you poſſeſs a collection of valuable ſpecimens of theſe ſubſtances, which it has never occurred to me to requeſt the inſpection of. To you, therefore, I confidently apply; and earneſtly intreat you to ſupply me with a regular, and ſyſtematic hiſtory of theſe ſtrangely figured ſubſtances; to underſtand the nature of which, I am impelled by the moſt eager deſire. The petition I am making will, I truſt, be favourably attended to; when you conſider, that, without your aſſiſtance, the pleaſure I have promiſed myſelf, in my long-propoſed tour, will be conſiderably diminiſhed: for what, to an inquiſitive mind, can be more mortifying, than to have the curioſity excited to the higheſt pitch, without acquiring a ſingle point on which even conjecture may be founded?

LETTER II.

"*Veſtiges of the inhabitants of a former world—limeſtone and marble—medals of creation—pleaſures afforded by this ſcience—animals in the former world, different from thoſe of the preſent.*

"To comply with the requeſt you have made, will give me real ſatisfaction; ſince, I am confident, ſhould my endeavours prove equal to the undertaking, that I ſhall open to you a ſource of inexhauſtible pleaſure. For, not only the country through which you are now journeying, but the greater part of this iſland; and even of the globe, teems with theſe curiouſly-formed ſtones: the remains of thoſe beings, which, many ages ſince, depended, for their exiſtence, on the various energies of vegetable or animal life. Theſe bodies, every atom of which they are conſtituted exiſting in a different ſtate of combination, from that in which they were originally diſpoſed, often retain, nearly, the exact figure which they bore in their primitive ſtate. But the forms which they preſent to our view are, frequently, ſo different from any organized being we have any knowledge of, that their appearance cannot fail to excite an enthuſiaſtic admiration; and an eager deſire to obtain all the information, reſpecting them, which can be acquired.

"Notwithſtanding the intereſt which they muſt excite, want of information, reſpecting theſe bodies, generally prevails. Even in thoſe places in this iſland, where they moſt commonly are found, all inquiries reſpecting them are, in general, anſwered only by the moſt ſilly tales and legends. This is, perhaps, attributable to the circumſtance of no particular treatiſe, on theſe ſubjects, having yet appeared in the Engliſh language; excepting a few valuable papers in the Philoſophical Tranſactions: Dr. Woodward's Catalogue of his Collection of Foſſils: Mr. Walcot's Deſcription and Figures of Petrifactions, found near Bath: ſome obſervations in Mr. Jones's Phyſiological Diſquiſitions: and Mr. Martin's Figures and Deſcriptions of Petrifactions collected in Derbyſhire. What elſe has hitherto been publiſhed, in this country, reſpecting them, has been chiefly in thoſe works, which, treating of mineralogy in general, have neceſſarily ſpoken of theſe ſubſtances, but in a moſt ſuperficial and unſatisfactory manner. In France and Italy, and more particularly in Germany, the moſt ardent and ſcientific inquiries have indeed been inſtituted; in conſequence of which, diſcoveries of the moſt curious and intereſting nature have been made. Theſe, however, having been publiſhed either in French, German, or Latin; and not having yet appeared in an Engliſh dreſs, it is not to be wondered at, that the aſtoniſhing information which they impart is ſo little known in this country.

"From the conſideration of this circumſtance, I am diſpoſed to offer to the public eye whatever information I ſhall be able to collect, whilſt complying with your requeſt; truſting that the intereſt, excited by the ſubjects of my inquiry, will be ſufficient to awaken attention to a moſt pleaſing, but much neglected, ſcience.

"The illuſtrious Bergman elegantly deſcribes foſſils, as the MEDALS OF CREATION; and, indeed, a very little advancement in the ſtudy of this ſcience is neceſſary, to diſcover the peculiar propriety of the application of this term to the ſubjects of our preſent enquiry.

"By theſe medals of creation we are taught, that innumerable beings have lived, of which not one of the ſame kind does any longer exiſt—that immenſe beds, compoſed of the ſpoils of theſe animals, extending for many miles under ground, are met with in many parts of the globe—that enormous chains of mountains, which ſeem to load the ſurface of the earth, are vaſt monuments, in which theſe remains of former ages are entombed—that, though lying thus cruſhed together, in a rude and confuſed maſs, they are hourly ſuffering thoſe changes, by which, after thouſands of years, they become the chief conſtituent parts of gems; the limeſtone, which forms the humble cottage of the peaſant; or the marble, which adorns the ſplendid palace of the prince.

"Surrounded, as we are, by the remains of a former world, it is truly ſurpriſing, that, in general, ſo little

curioſity and attention are excited by them. Wherever civilized ſociety exiſts, theſe wrecks of the earlieſt ages may be found, yielding to man the moſt important benefits. Changed in their appearance, during the revolution of innumerable ages, they ſometimes manifeſt but ſlight traces of their former modes of exiſtence; and, having already performed ſeveral important offices in the economy of nature, they are now offered to man, as powerful inducements to the exerciſe of induſtry; and as fit materials, on which his faculties may be exerted. Varying infinitely in their nature and ſubſtance, according to the combinations into which they have entered, they become uſeful to man in numberleſs ways.

"Not the ſmalleſt or rudeſt village is to be ſeen, in the neighbourhood of a limeſtone-mountain or quarry; but it may be diſcovered that theſe have been ranſacked to furniſh the foot-path, or to aid the erection of the poor man's dwelling. In viſiting the manſions of the rich, we ſhall in general find, that, in proportion to the wealth and conſequence of the poſſeſſor, will the more ſolid parts of the building be compoſed of theſe remains of animated beings, which lived in a former world. For the external part of ſuch buildings, the architect finds no ſubſtance ſo well adapted, from its durability, and its eaſy yielding to the inſtrument, as the various kinds of coarſer limeſtones; nor for the more fine, internal and ornamental work, any ſubſtance ſo well calculated, by its fineneſs of texture, and pleaſing appearance, to unite the advantages of ſtrength and beauty, as the various marbles.

"Although inſuperable difficulties may oppoſe that theory, which attributes the formation of all theſe ſubſtances to the decompoſition of certain kinds of animal matter; yet I have no heſitation in aſſerting, that a very conſiderable portion of thoſe maſſes, entirely owe their origin to that proceſs. Seldom is a block of limeſtone ſevered, but the cut ſurfaces ſhew the veſtiges of animals, and of their domiciles: and frequently, the poliſhed ſlab of marble will be found to be almoſt wholly compoſed of ſimilar remains. Thus we perceive that matter is in conſtant motion; being impelled, in regular progreſſion, through various forms, and modes of exiſtence; and is thus made to perform thoſe important functions, on which the life, as it were, of this globe depends.

"The ſtudy of animated nature affords more amuſement, and excites more general attention, than, perhaps, any other department of natural hiſtory. It yields to the mind the ampleſt gratification, by the poſitive and indubitable information it conveys, reſpecting the varying œconomy, and the curious inſtinctive habitudes, which diſtinguiſh the numerous ſpecies of animals; and by diſplaying the almoſt inſenſible ſhades of difference, by which the varieties of each ſpecies are diſtinguiſhed; and the more marked and ſtriking contraſt, by which each ſpecies is ſeparated from the other. Nor yet is the mind feaſted to fulneſs; ſince, at the ſame time, the ſeveral proceſſes, ſerving to ſupport animal life; and the ſame infinitely-varied modes of organization, which exiſt even in the ſame being: cannot fail to excite an eager deſire, to obtain ſtill further knowledge, reſpecting thoſe aſtoniſhing operations: in which, although the effects are ſo obvious and even palpable, the immediate cauſes demand the cloſeſt inveſtigation for their diſcovery. In conſequence of this, although the mind obtains a conſiderable fund of pleaſing and poſitive inſtruction, it is ſo far from experiencing the torpor of ſatiety; that it looks forward, with increaſed ardour, to the extenſion of its acquiſitions.

"The ſcience, into the ſtudy of which I propoſe to lead you, alſo poſſeſſes theſe advantages, in a very eminent degree. You will be taught, clearly, by it, that the formative and preſervative powers, appointed by the Almighty, are momentarily exerted on the ſmalleſt particles of matter: that nature, by which I mean the perſonification of theſe powers, is conſtantly employed alſo on the largeſt, and apparently moſt inert, maſſes of matter: in accompliſhing the ſeveral proceſſes, neceſſary for the ſupport and continuance

of the earth, and its inhabitants. "You will behold her, inceſſantly labouring in the deep receſſes of the earth; as in the laboratory of the univerſe, reducing to form and beauty the mutilated wrecks of former ages.

"Nor can the mind be much more pleaſingly exerciſed, in the regions of conjecture, than by the curious inquiries to which the contemplations of objects, ſo intereſting, muſt neceſſarily lead. Many of the curiouſly figured ſtones, which will offer themſelves to your obſervation, you will be pleaſed in finding, on a cloſe obſervation, were once, as I have already remarked, beings endowed with the powers and faculties of vegetable or animal life. You will, by careful compariſon, diſcover, that, of theſe, ſeveral ſpecies are ſtill to be found in a living ſtate; but, moſt commonly, in parts of the world very remote from thoſe in which their remains are thus wonderfully preſerved. Other animals you will find thus aſtoniſhingly entombed, poſſeſſing, indeed, many of the anatomical characteriſtics of animals now exiſting; but differing ſo much, in other reſpects, as to require to be conſidered, as entirely different from any which are known now to exiſt. Thus you will behold the bones of an animal, of which the magnitude is ſo great; as to warrant the conviction, that the bulk of this dreadful, unknown animal, exceeded three times that of the lion; and to authoriſe the belief, that animals have exiſted which have poſſeſſed, with all the dreadful propenſities of that animal, its power of deſtroying, in a three-fold degree. You will alſo view the remains of a being of the magnitude, at leaſt, of the elephant; which was armed with tuſks, equally dreadful, as a weapon, with thoſe borne by that animal; and poſſeſſing, in addition to theſe, enormouſly huge grinders, ſuppoſed to bear the diſtinctive marks of thoſe creatures, which gain their food, by preying on thoſe of inferior powers and ſize. The jaws of an animal bearing a near reſemblance to thoſe of a crocodile, you will perceive to be armed with teeth, not widely different from thoſe of the ſhark. In a word, you will be repeatedly aſtoniſhed by the diſcovery of the remains of animals, of which no living prototype is to be found.

"When the mind has dwelt awhile on objects ſo well calculated to impreſs it with aſtoniſhment, freſh ſubjects for conjecture, and moſt intereſting contemplation, will ariſe. The number of theſe wrecks of a former world, muſt, as well as the ſituations in which they are found, excite the higheſt admiration.—Not in one particular ſpot—not in one region—not in one quarter of the globe alone—but wherever this world has been explored. In the greateſt ſubterraneous depths, in the bowels of mountains, and on heights vaſtly above the level of the ſea, are theſe wonderful remains to be found. But enough—I have preſſed ſo far on, as to be under the neceſſity of craving your indulgence, for credit, for the proofs of what I have already ſtated, which I promiſe ſatisfactorily to produce.—In the mean time, ſurely I may preſume that you begin to perceive, that this part of natural hiſtory poſſeſſes importance ſufficient, to claim a very conſiderable degree of attention. To confirm you in this opinion, I muſt add, that by theſe ſtudies a more perfect knowledge is gained of the internal ſtructure of this globe; of its antient ſtate; and, of the various and important changes it has ſuffered.

"By widening the views of the natural philoſopher; by opening to him freſh fields of obſervation; and, by ſhowing him a glimpſe of other creations; more juſt, and more grand ſentiments, alſo, muſt be excited, of the immenſity of animated nature, and of the power of the great Creator of all things.

"In purſuing theſe inveſtigations, I ſhall, in general, adopt the following order. The foſſil, in its preſent ſtate, will be carefully deſcribed; and, whenever it can be done, the ſituation in which it is found will be pointed out; its primitive mode of exiſtence, and the various properties which, by analogy, may be ſuppoſed to have characteriſed it in its living ſtate, will be enquired into; and the ſeveral changes which it has undergone, both in its compoſition and its ſtructure, will be carefully examined.

"The wonderful changes of ſituation, which the various objects of inveſtigation will be found to have

undergone, will neceſſarily demand an aſſiduous enquiry. The endeavour to furniſh ſome ſatisfaction on this abſtruſe and intereſting ſubject, will be reſerved, as much as may be, for the concluding part of our enquiries. This place it will occupy, with the moſt propriety; ſince the ſeveral facts and obſervations, detailed in the preceding part, will furniſh ſome of the *data*, which are to ſerve as the foundation for the reaſonings and conjectures to be advanced here. It is proper, however, in this place, to remark, that, on this ſubject, but little poſitive knowledge can be acquired; and that probable conjecture, even after the moſt aſſiduous enquiry, is the higheſt degree of ſatisfaction to which the mind can poſſibly attain. Indeed, the attempt to account for the aſtoniſhing appearances, which the ſurface of this globe preſents, may appear to many as indicating a very improper degree of confidence and preſumption.

"To trace the operations of nature, in periods far behind all human record; to pronounce opinions reſpecting the ſtructure and the inhabitants of a former world; and to endeavour to find out the ways of God in forming, deſtroying, and reforming the earth; does certainly appear to be a taſk, to which the limited powers of man are but little adapted. But, ſince the world we inhabit is evidently compoſed of the wrecks of a former world, the materials of which that world was compoſed are, of courſe, at hand for our examination. The remains too of its former inhabitants are frequently found preſerved, in ſuch ſituations as teach us ſomething, not only reſpecting the extent of the changes, which have taken place on the ſurface of this globe, but even the particular element which was employed, as the chief inſtrument of deſtruction, and of renovation. Scripture, likewiſe, corroborated by the collateral evidence of all human tradition, ſupplies us with the grand leading facts; that, after the complete formation and the peopling of this globe, it was ſubjected to the deſtructive action of an immenſe deluge of water; all the fountains of the great deep were broken up; the high hills that were under the whole heaven were covered; and every living ſubſtance was deſtroyed, which was on the face of the earth. Chemiſtry and mineralogy alſo furniſh us with their aid, by which we are taught the ſeveral changes of which theſe ſubſtances, under various circumſtances, are ſuſceptible.

"By theſe aids, we may ſometimes be enabled to form, perhaps, a tolerably correct judgment, reſpecting ſome of the grand changes which took place, during the vaſt revolution which this planet has experienced. But ſo very remote is the period to which our minds are to revert: ſo looſe, and ſo light, are the grounds on which our conjectures are to be built: and ſo great is the temptation to imagination, to take the place of judgment, that, among the ſeveral ſyſtems, of which I ſhall have occaſion to make mention, you, not only, will hardly find one on which you can venture to depend; but you will diſcover, that the majority, ſo far from poſſeſſing even probability, rather reſemble the fictions of poets than the reaſonings of philoſophers.

"Yours."

Letters 24, 25, and 26, will illuſtrate the *theory* of this ingenious author on a very curious ſubject:

LETTER XXIV.

"*Enquiry reſpecting the origin of coal continued—hypotheſis propoſed—Moſaic account of the deluge—objections againſt—univerſality of the deluge—changes thus effected—vegetable matter diſpoſed in ſituations in which coal now exiſts.*

"I have been highly entertained, by a letter from our friend Wilton, in conſequence of your having ſhewn him my account of the various ſyſtems reſpecting the formation of coal. Indeed his remarks are ſo juſt, and his ſatire ſo pointed, as to give me ſome apprehenſion for the fate of my preſent letter, when ſubjected to his criticiſm and keen rallery. He reminds me of Dr. Halley's conjecture, that the world on which we dwell may have another habitable world within it, to which may be attached a ſyſtem of ſubterranean luminaries, reſembling thoſe which yield light to our upper world, but neceſſarily moving within a ſmaller

ſphere*. He ſarcaſtically aſks, whether our volcanoes are any thing but the grand outlets of the furnaces, and our veins of bitumen any thing more than the clogged-up chimnies of this inner world? The dread of criticiſm muſt not, however, deter me—I have engaged myſelf to the work, and therefore muſt not ſhrink.

"Having laid before you the ſeveral opinions which have been publiſhed, reſpecting the formation of coal, and having found myſelf under the neceſſity of ſtating my ſuſpicion of their inſufficiency, to account ſatisfactorily for the origin of this ſubſtance, it becomes a duty to offer any obſervations, which may ſeem to be likely, in the leaſt, to elucidate a ſubject involved in ſo much myſtery. But be aſſured that, whilſt doing this, I am not ignorant of the difficulties which ſurround me; nor, knowing how conſiderable theſe are, do I preſumptuouſly expect to eſtabliſh an impregnable ſyſtem. On the contrary, I fear, that many unforeſeen, and powerful objections may ariſe, againſt opinions thus hazarded, on a queſtion which has been left in a great meaſure undecided, after careful diſcuſſion, by men of eminent abilities. If, on the one hand, I experience the mortification of differing from opinions which have been generally received; it is, on the other hand, highly ſatisfactory to know, that this difference is ſo little, as in ſome inſtances, to conſiſt merely in an extenſion, and in others, in little more than a modification, of thoſe opinions. Thus the explanation here offered will be found in perfect coincidence with that given by Mr. Hatchett, Mr. Williams, and Mons. Tingry, as far as regards the derivation of coal from vegetable matter; differing only from that of the two former gentlemen, in its attempt to aſcertain the nature of the proceſs by which the change has been effected; and from that of the latter gentleman, in not acknowledging the neceſſity of the general operation of mineral vapours, or ſubterranean fires and diſtillation.

"The opinion, which the ſtricteſt examination of every circumſtance ſeems beſt to warrant the adoption of, appears to be, that coal is a product of the vegetable matter, which has been buried at ſeveral diſtant periods, but chiefly in conſequence of an univerſal deluge; and which, after having been reduced to a fluid ſtate by the bituminous fermentation, has ſuffered a certain modification of that inflammability, which bitumens in general poſſeſs, by the oxygenizement of its carbon, and by an intimate and peculiar intermixture with various earthy and metallic ſalts.

"In examining the ſolidity of this hypotheſis, the attention muſt become particularly engaged by three different circumſtances, which offer themſelves as neceſſary objects of inquiry. In the firſt place, the neceſſity preſents itſelf, of aſcertaining, whether the deluge may have been capable of occaſioning that depoſition of the matter of which coal is formed. In the next place, it ſhould be determined, whether the circumſtances under which this matter has been depoſited, were likely to occaſion it to undergo ſuch chemical changes as would produce its tranſmutation into coal.—Laſtly, the examination is requiſite, to diſcover, how far this ſuppoſititious change accords with the general œconomy of nature; or, at leaſt, with that part of it which it has been permitted to us to underſtand.

"The general tenour of the Moſaic account of the creation of the world, as well as ſeveral diſtinct expreſſions employed by the ſacred hiſtorian, whilſt ſpeaking more particularly of the creation of the vegetable ſyſtem, yield the ſtrongeſt grounds of belief, that the earth, in its antediluvian ſtate, was moſt plentifully ſtocked with plants and trees of every kind and ſize. The employment which was allotted to Adam, for 'the Lord God took the man, and put him into the garden of Eden to dreſs it and to keep it†,' and the extenſive ſpace which this garden is implied to fill, for 'out of the ground (of this garden) made the Lord God to grow *every* tree that is pleaſant to the ſight, and good for food,' as well as the general ſcenery, and the moſt prominent circumſtances in this hiſtory of the firſt man, all concur to ſhew, that the mandate of the Creator was,

* Miſcellanea Curioſa, p. 43.

† Geneſis ii. 15.

in this reſpect, completely fulfilled, and that 'the earth brought forth graſs and herb, yielding ſeed after its kind, and the tree yielding fruit, whoſe ſeed was in itſelf, after his kind*.'

"Agreeable to the ſame ſacred tradition, the earth was peopled from a ſingle pair; and, from various particulars which appear in the hiſtory of their immediate deſcendants, we may perceive, that the arts which they poſſeſſed, and the kind of life which they led, accorded with thoſe which the hiſtorians of later times have ſhewn to have been adopted by the aboriginal inhabitants of every country. Their dreſs was ſimple; and their employments, that of keeping of cattle, and of tilling the ground, were thoſe of man in his rudeſt and moſt uncivilized ſtate.

"After a certain period, ſeven generations from Adam, we are told the arts of civil life began to appear. 'Jabal was the father of ſuch as dwell in tents, and of ſuch as have cattle—Jubal was the father of ſuch as handle the harp and organ—and Tubal Cain was the inſtructor of every artificer in braſs and iron†.' Whether this relation is to be taken literally, and that theſe arts were actually invented during the eighth generation of mankind, or whether this account was only meant to deſignate the regular progreſs of the firſt race of men from a rude to a civilized ſtate, will not affect the preſent object of inquiry. A period ſufficiently long to allow a prodigious increaſe of the vegetation which adorned the ſurface of the earth, muſt have elapſed, whilſt the firſt families of mankind were thus emerging from a ſtate of rudeneſs to that of civilization. For during that period in which a people exiſt only in a ſtate of nature, as it is termed, the wants which they feel, and conſequently the arts which they cultivate, being few, neceſſity will but ſeldom oblige them to level the trees of their ſurrounding foreſts. Thus uninterrupted, the earth, which has been aſſumed to be well clothed, even immediately after its formation, muſt, in the ſucceeding early ages, have teemed, in almoſt every part of its ſurface, with vegetable life.

"From the ſame invaluable records we learn, that, after the earth had exiſted during the period of ſixteen hundred years, the Almighty decreed that a flood of waters ſhould be brought upon the earth, and that the earth ſhould be thus deſtroyed. All the fountains of the great deep, we learn, were broken up, and the windows of heaven were opened. Forty days and forty nights it rained upon the earth, all the high hills that were under the whole heaven were covered, and the waters prevailed upon the earth an hundred and fifty days‡.

"Various objections have been offered againſt this, the Moſaic, account of the deluge. Men of the greateſt learning and piety have doubted, whether the relation ſhould be taken literally or not; and have differed very much, in their opinions, as to the extent to which this aſtoniſhing revolution of the earth reached. Some have doubted the exiſtence of a ſufficient quantity of water, to deluge the higheſt mountains of the earth; whilſt others, among whom may be mentioned the right rev. biſhop of Clogher, have imagined, that the deluge ſhould not be conſidered as having covered the whole face of the earth. His lordſhip was of opinion, that ſome parts of the then habitable world, which by the force of the deluge were ſeparated into iſlands, and were divided from the continent whereon the ark landed, were in ſome ſort exempted from the common calamity, brought on the reſt of the world by the deluge; inaſmuch, his lordſhip ſays, as the continent of America, and many iſlands in the Eaſt Indies, are at preſent partly inhabited by wild beaſts and noxious animals, which it is not reaſonable to imagine, that any body could, or would, have imported thither ſince that time§.

"To account for this particular circumſtance, may not, perhaps, be very eaſy; but, however, it is not neceſſary to be done, in proving the prevalence of the deluge over every part of the known world; ſince teſtimonies ſufficient to this fact, are

* Geneſis i. 12. † Geneſis v.

‡ Geneſis vii.

§ Vindication of the Hiſtories of the Old and New Teſtament, p. 171.

yielded by thoſe wonderfully preſerved remains of former ages, which form the general ſubject of theſe inquiries, and which have been diſcovered in almoſt every part of the known world. Even the very ſpots which were thus pointed out, by his lordſhip, as having been exempted from the fate of the reſt of the world, contain the moſt aſtoniſhing and intereſting remains of organized beings; at once proving that the waters of the deluge did cover the whole earth, and leading us to regard the globe we inhabit as one vaſt tomb of a former world.

"Aſſuming it then as proved that the deluge did overwhelm the whole of this globe, it next becomes neceſſary, to inquire what changes were probably thus effected. Very different opinions have been maintained reſpecting the degree of change which took place on the earth, in conſequence of the deluge. Some have ſuppoſed that the change was but ſlight and ſuperficial, affecting the upper ſurface only of the earth; but others, conſidering the declaration of the Almighty's intention to deſtroy the earth, as well as its inhabitants, 'God ſaid—Behold, I WILL DESTROY THEM WITH THE EARTH*,' conclude that all the ſtrata of the antediluvian earth were actually diſſolved, and their conſtituent corpuſcles ſeparated one from another; and that, in this ſtate of ſeparation, they were mixed with a large quantity of water, ſo that the whole was reduced to a fluid colluvies†. The attempt to determine what changes were actually effected at this period, cannot be expected to prove very ſucceſsful: but perhaps a near approach to truth would be, the ſuppoſition that the force of this immenſe quantity of fluid matter muſt have been ſuch, as to have deſtroyed the whole of the original ſurface, and to have conſiderably deepened and widened thoſe excavations which had contained the antediluvian waters; whilſt, by the falling of vaſt ſubverted maſſes, other cavities would be filled, and former channels choked up. By the violent agitations which the waters muſt for a conſiderable time have endured, the earthy matters they contained muſt have ſuffered the higheſt degree of attenuation, and diviſion; and by their gradual depoſition in thoſe ſituations in which the waters were leſs agitated, or where they became ſtagnant, muſt have formed horizontal ſtrata, where the ſurface on which they were depoſited was flat; and new mountains, where this depoſition was made on the elevated ſubaqueous remains of former mountains.

"Poſſeſſing no other data from which we can infer what form the ſurface of the antediluvian world bore, we can only reſt on the mention of its rivers, and its high hills, which give us reaſon to ſuppoſe it might have borne ſome affinity with that which the preſent ſurface of the earth preſents to our view; and the ſides of the hills, with their correſpondent vallies, and the extended plains, it may be concluded, were covered with their appropriate tribes of trees and plants. Aſſuming theſe for the generalities of the earth's external form, it is evident that the waters, whether ſupplied by the rain alone, or by other ſources, as ſeems to be implied by the breaking up of the fountains of the great deep, muſt neceſſarily have firſt filled the lower parts of the earth. When it attained a greater height, then muſt this powerful element have ruſhed in torrents from valley to valley, breaking down, or ſurmounting, every intervening obſtacle; and laying proſtrate the vaſt foreſts with which the ſurface was every where clothed. Of the trees thus overthrown, the loweſt ſtratum of vegetable matter would be formed, which would ſoon become buried beneath the ſediment, which would be continually depoſiting from the ſuperincumbent waters, loaded with every ſpecies of earthy, and even mineral matters, with which they would be impregnated by the effects of an alluviation more powerful than we can poſſibly conceive.

"As the volume of the water increaſed, the ſides of the mountains would become ſubjected to the violence of its action. The roots of the trees, which grew on their ſides, would become looſened, and the trees themſelves, and the earth in which

* Gen. vi. 13.

† A Treatiſe on the Deluge, by A. Calcott, 1761.

they had grown, with the various other vegetables which had been generated and nouriſhed in the ſame matrix, would fall into the flood, and form a freſh ſtrata of vegetable matter. Thus would a maſs of vegetable matter, immenſe beyond conception, become ſubjected to the domination of this powerful element. Theſe ſeveral ſtrata of vegetable matter would become covered by ſtrata of earth formed by the gradual depoſition of ponderous, but minutely divided particles, which would ſoon form a covering ſo compact, as would be able conſiderably to reſiſt the ordinary fluctuation of the water. Similar alternating ſtrata, conſtituted by the ſucceſſive ſubſidence of maſſes of vegetable matter, and of finely divided particles of earth, may be ſuppoſed to be thus continually forming until the waters had covered the tops of the high hills. Thus may, perhaps, be explained the ſituation of diſtinct veins of coal, ſeparated by ſtony ſtrata; all, perhaps, the work of depoſition.

"From what cauſe it proceeded, it will, perhaps, be impoſſible ever to determine; but there is certainly reaſon to believe, that the waters of the deluge poſſeſſed a very conſiderable ſolvent power over even thoſe earths which we conſider as moſt untractable. From the intermixture and cryſtallization of theſe proceeded thoſe ſiliceous and ſpathous veins which alternate with and interſect the various ſtrata which form that part of the earth which has been ſubjected to our examination.

"Not only the form, but the ſubſtance, of the ſurface of the newly-formed poſt-diluvian world muſt have differed very much from that which exiſted before the flood: vaſt and innumerable muſt have been the changes, which it muſt have undergone, before the reſpective ſituations of the waters and of the dry land, could have even made an approach to ſtability. From the violent action of the waters at the period of their firſt effuſion over the earth, as well as during their reſidence and their departure, the continuity of the earth muſt have been broken in many places; necks of land muſt have been left, forming, according to circumſtances, iſthmuſes, or promontories; vaſt maſſes of earth, conſiderably undermined, would remain on the ſuperior parts, and on the declivities of mountains; and, as vegetation would doubtleſsly be rapidly renewed, wherever the earth became uncovered from the waters, theſe projecting parts would ſoon be covered by the verdure of various vegetables. But the newly-formed ſurface would, perhaps, for a conſiderable period, be continually undergoing a change of its form: the waters, urged by violent tempeſts, and agitated by receiving the immenſe fragments of falling mountains, might ſeparate thoſe necks of land of which we have juſt ſpoken, and which its flower action had been continually reducing: the divulſed parts of which, with the vegetation they bore, would ſink into the waters of the ocean. Thus alſo, by the force of tempeſtuous winds, and even by the gradual influence of the weather, large projecting and dependent portions of mountains, with their newly-produced foreſts, would frequently be ſinking in the ſurrounding waters. Thus would additional layers of vegetable, and of earthy matters, be repeatedly formed over thoſe ſtrata of vegetables which had been overthrown by the firſt violence of the deluge.

"As when the greater part of the waters of the deluge had drained off, and when the ſurface of the globe again became divided into water and dry land, the lower and more excavated parts would neceſſarily retain the water for a long time; thus, as well as the rivers and ſeas, would immenſe lakes be formed. In theſe lakes would the numerous tribe of aquatic plants flouriſh, which, as the waters at laſt ſubſided, would cover the bottoms of theſe hollows with a maſs of vegetable matter, covered by a deep coat of earthy depoſition; which, drying gradually, would ſecure the ſubjacent ſtratum from the action of the air. From the numerous revolutions which the newly-formed earth would be deſtined for a time to undergo, many of theſe hollows might be again filled with water. Adjoining lakes might burſt through their interpoſed mounds, and thus refill them; or, among the mountains which helped to form the baſons of theſe lakes, ſome which

had been weakened in their baſes, by the previous action of the waters, might now become more effectually undermined, and might fall into the lake beneath, and thus force the water beyond its newly-eſtabliſhed limits. In new lakes, thus formed in the cavities of previouſly exiſting ones, aquatic vegetation would again go on, whilſt a compact ſtratum from the ſubſidence of the ſuſpended earth would form at the bottom; and when the waters themſelves had drained away, a freſh depoſit of vegetable matter would be formed, which would, like the former, become covered with a ſtratum of mud, capable of acquiring, as in the former inſtance, a conſiderable degree of hardneſs.

"Such of the vegetable matters, as might float on the laſt remaining waters of the deluge, might be waſhed into other hollows of leſs depth, and, becoming only covered with a moderately thick coat, would become peat bogs; and, if left for a long ſeries of time totally undiſturbed, would, perhaps, form lakes of petroleum, ſimilar to that which now exiſts in the iſland of Trinidad, a deſcription of which has been already given in the Fourteenth Letter.

"When the different facts are conſidered, which have been already related, reſpecting the ſituation of coal, and of the various ſtrata which are interpoſed between its ſeveral beds; and which have evidently been produced by gradual depoſition in water, I truſt that no glaring incongruity will appear, in the opinion, that vegetable matter of the antediluvian world might be diſpoſed, by the waters of the deluge, in all thoſe ſituations in which we now find coal.

"Yours, &c."

LETTER XXV.

Inquiry whether the vegetable matter was depoſited at the deluge under circumſtances favourable to its converſion to coal—bitumen alone not fitted for fuel—other matters neceſſary to be added—peculiar arrangement of the particles.

"The next queſtion which demands conſideration is, whether ſuch an arrangement of the materials of the flooded ſurface of the antediluvian world, as has been aſſumed in my laſt Letter, would be likely to promote ſuch chemical changes, in the ſtrata of vegetable matter, as would effect its converſion into coal? This we will therefore now inquire into.

'That vegetable ſubſtances placed in a maſs, in a ſubterraneaa ſituation, will, with the aid of moiſture, or, perhaps, with only that which they themſelves contain, paſs into a peculiar fermentation, and become thereby converted into bitumen, has been already aſſerted in a former Letter*; to which I muſt now refer you, for thoſe arguments which appear to me to be beſt calculated to ſupport that opinion. Your attention muſt here, however, be requeſted to one additional conſideration, which will ſerve, very probably, to corroborate the application of that hypotheſis to the preſent ſubject, the origin of coal.

"In the promulgation of that hypotheſis you perceived, that the circumſtance on which the bituminizating proceſs was ſuppoſed eſſentially to depend, was the ſecluſion of the vegetable matter from the atmoſpheric air. According to the accuracy with which this part of the proceſs was performed, it neceſſarily follows, would be the approach to a ſtate of perfection, in the product of the operation. Now, by a ſlight reviſion of what has been ſaid, in the Letter immediately preceding this, you will not fail to perceive, that whilſt endeavouring to aſcertain the moſt probable mode in which the vegetable matter of the antediluvian world was diſpoſed, there appears great reaſon to ſuppoſe that the diſpoſition of it muſt have been ſuch as would moſt certainly ſecure the completion of the aſſumed proceſs.

"Buried in a conſiderable maſs,—thoroughly imbued with water, and covered over with denſe, compact ſtrata of earth, its ſecluſion from the atmoſpheric air muſt have been very accurate; and taking it for granted that the change it was to undergo would much depend on this circumſtance, then we have every right to conclude that its converſion into bitumen would be produced moſt certainly and effectually.

In another Letter†, I have alſo endeavoured to make it appear, that

* Letter XVIII. † Letter XXII.

the darkneſs of colour of ſome of the bitumens, from the brown of petroleum to the black of jet, proceeds from the ſaturation of the carbon, one of the conſtituent principles of bitumen with oxygen. On this point I can be able to add but little to what I have there attempted to eſtabliſh. To one circumſtance only I have to attract your attention, which is, that during the formation of coal, the bitumen is thoroughly pervaded by other ſubſtances impregnated with oxygen; and from which, by ſuperior power of attraction, the carbon is able to detach it, and then engage it in combination with itſelf. That this is the caſe, and that theſe ſubſtances are applied to the bitumen, under circumſtances the moſt favourable to the promotion of ſuch a combination, will, I truſt, appear, whilſt attempting to aſcertain the circumſtances on which ſome of the other phyſical and chemical properties of coal ſeem to have chiefly depended.

"From what has been already ſaid, whilſt ſpeaking of the formation of bitumen, you will have perceived, that I am of opinion that, in proportion as the proceſs of bituminization approaches to perfection, the ſubſtance acted upon acquires a ſtate of fluidity. With reſpect to coal, the formation of which may be regarded as the grand and important end, for which this proceſs has been inſtituted, it would be reaſonable, *à priori*, to conclude, that the laws of nature would decree that the ſubſtance which is to undergo this neceſſary change, ſhould, in general, be ſo diſpoſed, as to have ſecured to it the full effect of the operation of every ſtage of the proceſs. But ſhould the circumſtance of coal having exiſted in a ſtate of fluidity, be ſuppoſed to be not fairly inferable from theſe premiſes, ſome increaſe of the probability of the circumſtance may ſurely be derived from a view of the ſubſtance itſelf. For whether we dwell upon the peculiar fracture of common coal, or on the vegetable impreſſions which are frequently found on it, the idea of its having exiſted in a fluid ſtate muſt preſent itſelf to any one, whoſe mind has not been prepoſſeſſed by ſome contradictory hypotheſis.

"From this ſtate of fluidity would reſult a very neceſſary change in the nature of the maſs. With the vegetable matters which have been ſuppoſed to have been ſunk in the waters of the deluge, a conſiderable portion of mud and groſs earthy particles muſt have been blended; theſe, however, when bituminization had given fluidity to the maſs, would, in conſequence of their ſuperior gravity, ſettle, and form that ſtratum which was to become the floor of the pit, leaving the pure bitumen above.

"By reverting to a circumſtance mentioned whilſt ſpeaking of peat and of bituminous wood—their eager retention of the water in which they had been immerſed, parting with it as difficultly as would a ſponge, and that only on the employment of a conſiderable degree of preſſure—we learn, that water may be ſo thoroughly interſperſed between, and ſo intimately united with the particles of bitumen, as to conſtitute a part of its maſs. This, however, takes place in the pure bitumens only whilſt in a ſoft ſtate; ſince where theſe ſubſtances have once been deprived of the water they contain by exſiccation, they are no longer capable of entering into union with it; becoming impermeable to that fluid with which every part had before been penetrated. Thus in many other ſubſtances, ſuch as the balſams, gum reſins, caoutchoue, and vegetable gluten, a certain portion of water enters into their original compoſition, being a neceſſary conſtituent of the ſubſtance whilſt exiſting in that form; but when theſe ſubſtances become dry and hard, water is capable of being united with them, but very ſparingly, if at all. The abbé Fortis, whilſt deſcribing the mine of piſaſphaltum, in the iſle of Bua, relates, that upon breaking the drops of bitumen, which having exuded in a ſoft ſtate, had become hard and brittle, he found in the centre of each a drop of clear water. That water exiſts formally in petroleum is rendered probable, by its being produced in a conſiderable quantity by the diſtillation of this ſubſtance. It muſt indeed be allowed, that, in the operation of diſtillation, ſuch a new combination of the principles of which the petroleum is compoſed may take place, as may occaſion the formation of water; the hy-

drogen and oxygen thus uniting, whilſt the carbon is left in the reſiduum contained in the retort; but that water may exiſt in, and form a part of the original ſubſtance, there does not appear to be the leaſt reaſon to doubt.

"A circumſtance which reſpects the roof of coal-pits is well deſerving your attention in this place. Generally the ſchiſtoſe covering, which forms the roof, is for a conſiderable thickneſs ſo impregnated with bituminous matter as to poſſeſs a degree of combuſtibility, which is, in ſome inſtances, ſo great as to allow the employment of theſe ſchiſti, for the purpoſe of combuſtion, in the burning of lime, ſmelting of metals, &c. A ſimilar impregnation of the earth which covers the foſſil wood of Munden, deſcribed by profeſſor Hollman, and of that of Bovey, deſcribed by Dr. Milles, is alſo obſervable. Impregnation of the earth to a conſiderable thickneſs is alſo well known to exiſt in the earth in the neighbourhood of petroleum ſprings. Thus, as has been already noticed, in the valley of Noto, in Sicily, is a ſpring of petroleum, which diſcharges itſelf into the lake Palius: the earth above it, even to the ſurface, being ſo much bituminized as to have taken fire by accident, and to have burnt for ſeveral months. The connection between theſe ſeveral impregnations appears to be evident. As the reſolution of vegetable matter into a bituminous fluid takes place, ſo in proportion will the adjoining earth become impregnated; and where this change is ſo complete that a fluid bitumen is formed, the diffuſion and abſorption will, of courſe, be extenſive, in proportion to its fluidity. The bituminous ſchiſt, which is adjoining to beds of coals, is evidently formed of ſuch earths as have become impregnated by the fluid bitumen, whilſt the coal exiſted in the fluid ſtate of petroleum.

"A reviſion of the ſeveral circumſtances mentioned whilſt deſcribing the ſituation of coal and its accompanying ſtrata, will ſerve not only to confirm the ſuppoſed origin of coal, but alſo to prove the fact of its having at one time exiſted in a fluid ſtate. The different *partings*, as they are termed, between the top of the coal and the roof, deſerve particular notice on this account. In good partings there ſometimes exiſts a ſpace between the coal and roof, the coal being ſprinkled with a powder like charcoal. In this caſe the previous fluid ſtate may be ſurely inferred without the leaſt difficulty, the ſpace appearing to be the conſequence of the drying and contraction of the matter forming the coal, after the ſuperior ſtratum, the roof, had acquired a conſiderable degree of firmneſs. This inference muſt be made, almoſt without heſitation, in other inſtances, where the parting is perfectly clear; the head of the maſs of coal being deſcribed, by writers on this ſubſtance, as poſſeſſing a ſurface ſo ſmooth and poliſhed, as if it had been varniſhed or covered by ſome fluid matter.

"In confirmation of coal having exiſted in a ſtate of fluid bitumen (petroleum), I muſt remark that this ſubſtance is frequently found in the neighbourhood of coal. Thus Mons. Morand, who thought that bitumen was probably the baſis of coal, informs us that in the mines of Franche Comté, the bitumen exudes in the form of a ſort of *guhr* (tears of the mines).

"That the wreck of the vegetable part of the antediluvian world was placed in ſuch a ſituation as to be continually permeated by water, and ſubjected to the converſion into bitumen; and that the naſcent bitumen would unite with, and afterwards retain a portion of this water, I have not, indeed, been able to preſent you with actual proof; but have been only able to offer you evidence of a circumſtantial nature: truſting, however, that it is of ſome conſiderable weight.

"Bitumen alone would not, however, accompliſh that grand purpoſe for which nature formed coal; that of ſupplying future ages with a ſubſtance for fuel, which, by a moderate exerciſe of the ingenuity of man, might be made to burn with almoſt every degree of intenſity; from that which is employed to convey to the human body a grateful ſenſation, to that which is neceſſary to fuſe ſome of the untractable metals.

"The rapidity with which pure bitumen burns, would not only oc-

caſion a conſiderable waſte of it, if it were attempted to be employed for the purpoſes to which coal is applied; but would alſo render it ſo unmanageable, as entirely to prevent its uſeful application, to even the moſt ordinary purpoſes, which coal is intended to fulfil.

"To moderate this high degree of combuſtibility, and ſo to regulate it, that the conſumption of a ſubſtance, ſo neceſſary to man, ſhould be rendered uniform and œconomical, was therefore required. To accompliſh this, the intermixture of ſome incombuſtible ſubſtance with the petroleum became neceſſary. But to produce thoſe characteriſtic properties, by which coal is diſtinguiſhed from all other ſubſtances of the ſame claſs, a particular kind of arrangement of the particles of this heterogeneous maſs was requiſite. It was neceſſary that the bituminous particles ſhould be ſo involved, and inſulated, on every ſide, as to be nearly defended from the action of the fire. It was alſo neceſſary that the regularity of its combuſtion ſhould not be diſturbed, by the ſuperadded incombuſtible matter exiſting in the mixture, in ſuch groſs particles, or in ſo irregular a ſtate of diffuſion, as would have been the caſe, if the earth had remained in it, in the ſtate in which it had ſubſided along with the ſunken vegetable maſs.

"The arrangement of the reſpective particles of the maſs which would make the neareſt approach to the attainment of the required object, would be that in which each individual particle of bitumen would have its combuſtibility left unimpaired; except ſo far as its inflammability would have been corrected by the oxygenizement of its carbonaceous part: at the ſame time that, by the appropriate interpoſition of ſome nearly incombuſtible matter, ſuch a check ſhould be given to the ſpread of the ignition, of one ſeries of the bituminous particles to another, as ſhould render their combuſtion ſufficiently ſlow and gradual. Such an arrangement as might thus, *à priori*, have been ſuppoſed to be beſt calculated to produce this effect, may be perceived, to have been actually employed in the formation of coal.

"If a piece of common coal be waſhed in water, ſo as to remove from its ſurface all the minute ſhattered fragments, which adhere to it, the fingers will be found to be no longer ſtained by it: and with a lens of very moderate power, or even with the naked eye, it may be plainly ſeen, that the bituminous matter is diſpoſed in an irregular laminated ſtructure, and that the horizontal ſurface of each ſmall and thin ſtratum is finely coated with an extremely thin film. This film, or pellicle, may alſo be ſeen frequently to dip, and paſs through the ſubſtance of the bitumen; interſecting the horizontal ſepta nearly at right angles, and thus placing the bitumen in diſtinct diviſions, the *parietes* of which are formed of an incombuſtible pellicle. This film, in general, reflects tints of a greyiſh white, but ſometimes it appears with the hue of bronze. Frequently it is of a pyritous nature, ſhining with a bright metallic luſtre, or, as in the peacock coal, manifeſting a beautiful iridiſcent appearance; frequently alſo, when the pellicle itſelf is of a greyiſh white, it will be variegated with bright yellow pyritous illinitions; and ſometimes ſpathous, or pyritous lamina, will be interpoſed, a quarter of an inch, or even more, in thickneſs. On inſpecting the edges of the coal, each ſeparate lamina will be found to be compoſed of bituminous concretions, exhibiting the conchoidal fracture, and ſhining with a conſiderable degree of luſtre.

"On letting a piece of coal fall on any hard body, thus breaking it in ſuch a manner as will not direct its fracture, but will allow it to take place in ſuch directions as accord with the natural diviſions formed by the interpoſed films, the fragments will in general be found to aſſume the form of rhomboids or of parallelopipeds; the very forms which a body, whoſe parts were thus ſeparated and diſpoſed, might be expected to exhibit, on being fractured.

"The ſeparating pellicles or interpoſed ſepta, in thoſe ſpecimens which I have examined, appear to be formed of ſulphate of lime, containing a ſmall proportion of alumine, and ſometimes alſo of ſulphuret of iron. The preſence of theſe ſubſtances in coal, is manifeſted by the

analyſis which has been made of this ſubſtance. Mons. Fourcroy has aſcertained that the aſhes of coal contain the ſulphates of iron, of magneſia, of lime, and of alumine; and, even in aſphaltum, both the ſulphuric and muriatic acids were found, by du Blé, in union with calcareous earth.

"By ſuch an arrangement of the bituminous particles, and by the frequent interpoſition of pellicles of incombuſtible matter, which have been juſt deſcribed, not only is the combuſtion of coal moderated, but it is likewiſe ſo regulated that, in its employment for common domeſtic purpoſes, the internal parts of even ſmall portions of coal are ſo protected, from the too rapid acceſs of the oxygen, that only the external part is actually conſumed and reduced to an aſh; whilſt the other part is rendered a coke or cinder, and, is capable of being again employed; and even, with increaſed advantage, in many culinary and chemical operations. Here then are we preſented with one of the many inſtances, in nature's works, of the obtaining of the moſt important ends, by a contrivance not leſs remarkable for its ſimplicity, than for the certainty with which it accompliſhes the deſired effect. It alſo ſerves to ſhew that, in every inveſtigation of the operations of nature, the more minute are our inquiries, the more will our admiration be excited by the diſcoveries which we make. A ſuperficial examination of any of the works of creation muſt be ſufficient to excite our wonder; but an inquiry, ſucceſsfully employed, in aſcertaining the means by which one, even of the leaſt important purpoſes of nature is effected, cannot fail to excite a reverential awe, and diſpoſe to the adoration of the great Supreme.

"Yours, &c."

LETTER XXVI.

Recapitulation—apparent agreement of the hypotheſis with the œconomy of nature.

"To enable you to form a clearer judgment of the opinion I have delivered, reſpecting the formation of peat-bogs, coal ſtrata, &c. I will endeavour, in a recapitulatory ſketch, to furniſh you with an uninterrupted ſtatement of the means which, I imagine, nature employs for accompliſhing theſe purpoſes.

"On every part of the earth, where vegetation takes place, and where the ſurface remains for a long time undiſturbed, a light black earth will be found; being the carbonaceous remains of the vegetable matters which have been there annually depoſited, and which have undergone the decompoſing power of various ſucceeding ſeaſons. In thoſe parts, where, in conſequence of the melioration of the ſoil, by winter floodings, and the genial influence of the ſun's ardent rays in ſummer, vegetation proceeds with rapidity, there will the production of this vegetable earth not only be more conſiderable, but the ſame circumſtances will be alſo favourable to the formation, deſtruction, and reproduction of myriads of the ſmaller claſſes of animated beings which inhabit the ſurface of the earth, the waters, and the vegetables themſelves. The ſurface of the earth will here, therefore, at one ſeaſon be found teeming in every point with animal and vegetable life; at another ſeaſon it will be found richly impregnated with reſinous, oily, and other carbonaceous matters, which have been let looſe during the decompoſition of ſo many organiſed bodies of both kingdoms.

"Thus by the regular decay of the vegetables with which the earth's ſurface is covered, and of the animals which they nouriſh, are fit matrices formed, and appropriate nutrition ſecured for ſucceeding generations. By foreſts falling through age, and obtaining a covering from ſubſequent periſhing vegetables, and being afterwards pervaded by moiſture, the formation of peat-moſſes are eaſily accounted for; as well as the light looſe earth with which theſe are almoſt always covered, according to the poet, who, alluding to the vaſt profits derivable from the digging of peat, and to the indication of ſubjacent peat by the ſuperficial light earth, ſays,

Eſt locus in Batavis, ubi nec gratiſſimus hæres,
Terram defuncto non velit eſſe gravem.
*Epigram. ſeu Enigma de Terra ulgia ſa**.

* Epigrammata Conſtantini Hugenii, lib. i.

" But we have particularly to contemplate more ſudden and extenſive changes, wrought by a deluge extending its power over the whole ſurface of the earth. It is beyond the powers of the human mind to conceive the prodigious changes which muſt have been effected during this grand revolution. Receive then, with ſuſpended judgment, this ſlight ſketch of ſome of the probable events of that awful period.

" By the ſpread of this overwhelming torrent over the whole ſurface of the globe, foreſts muſt have been proſtrated, mountains broken down, and the waters of the rivers blended with thoſe of the ocean. During the ſtay of the waters on the face of the earth, vaſt changes muſt alſo have been affected. Long continued ſubmerſion muſt have rendered the earth ſo ſoft and yielding, that the preſſure, united with ſome degree of agitation of this immenſe bed of water, muſt have completed the ſubverſion of the foreſts by which the earth muſt have been nearly covered. Even during the paſſing away of the waters, conſiderable changes would be accompliſhed. Whilſt the waters were ſeparating from the dry land, the librating torrents would form for themſelves new channels: their beds, when cleared of their waters, would diſplay vaſt and extended valleys; and their ſides mountains of an alpine height.

" By the continuance of the waters the upper ſurface of the ſtrata of ſubverted vegetable matters would neceſſarily become covered by a muddy depoſition, which would ſubſide from the body of water, by which it had been overwhelmed. On the paſſing away of the water, the light ſubſtances which had floated on its ſurface, amongſt which would be various animal remains, would be depoſited on the muddy ſtratum which was already laid on the ſubjacent maſs of vegetable matter. Thus would be formed a ſoil, which, on the paſſing away of the waters, would again promote a rapid and luxuriant vegetation.

" Such a tract would neceſſarily long remain free from the interference or culture of man; and, previous to the complete departure of the water from it, would at certain times be liable to be covered by inundations; and at others, when left dry, would be expoſed to the heat of the ſun. The plants peculiar to theſe two different ſtates might alſo be expected to be produced. Hence equiſeta, reeds, and other aquatic plants, would at one time fill this ſpot, which at another would be covered with a variety of filices, and of other plants peculiar to the open and ſun-burnt heath.

" Should the neighbouring mountains have contained iron, this, diſſolved by the various ſalts with which the water would be impregnated, would be conveyed to ſpots where the water reſted, and where the decompoſing organic matters were depoſited; and would there be precipitated in the form of a brown oxide: this, uniting with the ſuperior and finer part of the earthy depoſit, would cover the decompoſing vegetable matter with a ſtratum which, perhaps, after no great length of time, would become that ſubſtance which is known to mineralogiſts as bog iron ore. But if, inſtead of the water paſſing off, it ſhould have long remained, and formed a large and deep lake, then would other ſtrata be ſucceſſively added to that which has juſt been mentioned. Sometimes theſe ſtrata would be furniſhed by the crumbled particles of the ſofter rocks, which formed the ſides of theſe immenſe and newly-formed reſervoirs; whilſt ſtrata of vegetable matter, furniſhed by the aquatic plants, or brought by torrents, would be arranged alternately with theſe. At other times, large maſſes of harder rocks would fall undermined, and, broken into pieces by the fall, would be ſized and rounded into boulders of various forms and magnitude; or would be ſo far comminated as to be rendered the materials of future breccia, the coarſer ſand-ſtones, &c. By the preſſure of many of theſe ſucceeding ſtrata, the lower ones would ſuffer a cloſer approximation of their parts. The effects of this preſſure are moſt obſervable in thoſe ſtrata which have ſince become ſchiſti, and which contain the flattened remains of both vegetables and animals. The marks of preſſure are not, however, obſervable in all the ſtrata, theſe effects appearing to be much leſs general and extenſive than might be ſuppoſed, ariſing, probably,

from each firmly conſolidated ſtratum protecting the ſubjacent ſtrata from the preſſure of the accumulating, ſuperincumbent maſs. Other ſtrata would be formed by the coaleſcing particles of iron and of argillaceous earth. Theſe now conſtitute the ſubſtances commonly called iron-ſtone, and which, from their compactneſs and great degree of ſpecific gravity, have been ſuppoſed by many mineralogiſts to owe their origin to fire.

"The ſtrata of depoſited vegetable matter, being thus ſecluded from the air, by alternating layers of denſe and compact ſtony matter, would proceed uninterruptedly through the bituminous fermentation; during which it would be conſtantly permeated by water impregnated with various ſaline, earthy, and metallic particles, derived from the ſeveral ſtrata through which it had filtered. Under the influence of theſe circumſtances, its converſion into coal would be completed. Thus would a ſubſtance, particularly adapted to the purpoſes of combuſtion, be formed from the *eluvies* of the devaſtating deluge, and would be providentially heaped up in the ſubterranean ſtorehouſes of nature, to be diſcovered in after-ages by the curioſity and induſtry of man, when the ſpread of civilization, by laying waſte the vaſt foreſts which covered the earth, ſhould have conſiderably diminiſhed the ſtock, whilſt the increaſed modes of conſumption ſhould have augmented the demand of fuel.

"When the very limited powers of our judgment are conſidered, which frequently are not even ſufficient to ſatisfy us reſpecting the immediate or proximate cauſe of ſeveral of the moſt common natural phenomena, we ſhould be very cautious in propoſing any hypotheſis reſpecting the operations of nature, unleſs the regular concatenation of cauſe and effect can be plainly traced, and the ſuppoſed final end is in exact accordance with our beſt ideas of utility and wiſdom. This caution is particularly neceſſary, if the hypotheſis is intended to point out a regular ſeries of operations, to mark their dependance, and, laſtly, to infer the purpoſes and motives which have influenced the Creator in making this particular arrangement. Without ſuch circumſpection there would be danger leſt, meaſuring the wiſdom of God by the ſcale of human intellect, inferences derogatory to the divine dignity might be made; and plans and contrivances be imputed to the Divinity, not only unworthy of omniſcience, but originating only in miſconception and preſumption.

"But, it is hoped, that hypotheſis which ſuppoſes the tranſmutation of vegetable matter into bitumen and coal, poſſeſſes the internal evidence of truth, ſince it preſents to us a ſcheme, in which the œconomy of nature is exerciſed in a manner the moſt agreeable to the ideas we entertain of a beneficent providence.

"Delightful indeed muſt have been the ſcene, which the earth muſt have every where preſented immediately before the deluge. Every hill and valley muſt have been clothed with luxuriant vegetation. But the moment of apparent deſtruction arrives: the lofty foreſts, with which nearly the whole of the earth is ſuppoſed to have been covered, are at once levelled: a world, which juſt before appeared an elyſium, is deſolated, and rendered one vaſt maſs of ſeeming ruin. Torn up and carried away by the force of the tremendous torrent, the trees of the mountains are laid on thoſe of the valleys, and are together buried by the ſubſequent ſubverſion of the mountains themſelves. Reflecting on ſuch a ſcene of deſolation, unproductive of any evident good, the mind heſitates, and feels a painful diſſatisfaction at being unable to imagine the origin of ſuch a maſs of evil, without depreciating the wiſdom or the power of the Creator.

"It is not, indeed, for me deeply to agitate the abſtruſe and important queſtion which is here involved; but permit me to obſerve, that when the power, the wiſdom, or the benevolence of God appears to be deficient, the defect will ever be found in the powers of obſervation and reflection of man, which do not enable him to diſcover the connection between a comparatively ſmall, or even only apparent evil, and a really great and important good.—After a ſhort period the waters paſs through their deſtined channels, and the earth again becomes covered by the delightful verdure of vegetables; fitted for the gratification of man, and for the

ſupport of animal life. The vaſt forests, too, thus buried in the earth, inſtead of mouldering into an inert and uſeleſs maſs, ſtill continue to perform an important part in the operations of nature. Inſtead of having been deſtroyed they are only changed, but ſo changed in their forms and qualities, as with difficulty again to be recognized. They have ceaſed, indeed, to live a vegetable life; but another mode of uſeful exiſtence is allotted them. Their conſtituent principles are now ſo arranged, as to form a ſubſtance entirely new, and different from any other which had previouſly exiſted, and they are again made, after the lapſe of a conſiderable period, to contribute in another mode to the comforts and enjoyment of man.

"Thus that which might once have appeared to have proceeded from imbecillity, or from a ſyſtem of deſtruction, is at a diſtant ſubſequent period ſhown to have been the reſult of ſupreme wiſdom; which has ordained that every atom, as well as the immenſe maſſes of matter, ſhall be continually ſuffering certain changes, agreeable to thoſe laws by which the univerſe exiſts. In theſe proceſſes of nature, the work of a ſupreme intelligence is diſcovered; and none can heſitate to ſay with the poet,

Nature is but a name for an effect,
Whoſe cauſe is God.—*Cowper.*

"Yours, &c."

XCVIII. INSTRUCTION FOR YOUTH, *in a Series of Lectures on Moral and Religious Subjects, intended for the Uſe of Schools and Families Vol. 2d, containing a View of the Evidences, Nature and Deſign of Chriſtianity.* By RICHARD WRIGHT. 300 *pages, duodecimo.* 4s. *Vaſter.*

WE are happy to announce the continuation of this excellent little work, which is deſerving of admiſſion into every ſchool throughout the kingdom. Take a ſpecimen:

"I now proceed to a more direct ſtatement of the deſign of chriſtianity relative to the world at large.

"As the world is God's world, as he is the common parent of mankind, as he is manifeſtly good to all, and as the goſpel is directed to be preached to all nations, it is reaſonable to conclude that, if it be of God, it is intended to accompliſh ſome deſign, worthy of its divine origin, upon the whole race of man. What can this deſign be but the univerſal happineſs of mankind? No deſign ſhort of this can make it appear altogether worthy of the loving and merciful parent of the univerſe. But this deſign neceſſarily comprehends many ſubordinate ones, and can be carried into effect only in a progreſſive way, ſuitably to the nature and circumſtances of man.

"1. *Chriſtianity is intended to enlighten the world.* Darkneſs had covered the earth, and groſs darkneſs the minds of the people, when Chriſt came to be the light of the world, by revealing the goſpel, and introducing chriſtianity among them. Ignorance is the root of ſuperſtition, vice and miſery. At this root the goſpel ſtrikes, as it is ſent into the world to open the eyes of men, and turn them from darkneſs to light. It is ſent for the expreſs purpoſe of enlightening all men. It hath already diffuſed much light into the world, though ſo many things have operated in the circumſtances and conduct of creatures to retard its progreſs, and prevent its effects. It has in theſe latter ages been gradually diſpelling the clouds which had ſo long obſcured its brightneſs, riſing above the obſtacles which obſtructed its way, and penetrating into dark and diſtant corners of the globe. We are aſſured in ſcripture that its light ſhall become univerſal, that the whole earth ſhall be filled with the knowledge of God, and that all fleſh ſhall ſee his ſalvation together. Then what was long ago proleptically ſpoken will be realized: Chriſt will enlighten every man that cometh into the world. All men will be brought to ſee the riches of the divine favor manifeſted by the goſpel. Thus the goſpel, which has hitherto barely glanced on many countries, and been repelled from approaching others, will, like the ſun in the firmament, ſhine in all its brightneſs upon the whole earth. The way has long been preparing: God will accompliſh it in due time.

"2. *Chriſtianity is intended to deſtroy ſuperſtition and eſtabliſh the doctrine and worſhip of one God throughout the earth.* Superſtition had gained a univerſal empire, and the doctrine of one God was loſt among the Gen-

tiles, when the goſpel was ſent to them. There is nothing againſt which it is more pointed than every ſpecies of idolatry and ſuperſtition. Nothing on which it more ſtrongly and plainly inſiſts than the doctrine and worſhip of one God. It has already deſtroyed much ſuperſtition in the world. It has diſengaged itſelf from much of the ſuperſtition which the ignorance and folly of men had appended to it. It has already diffuſed the doctrine and worſhip of one God, whatever miſtakes in faith and practice may be ſtill aſſociated with that doctrine, widely among men. It has in theſe latter times revived the belief and worſhip of one God in a more pure and conſiſtent form than it was viewed formerly, and the proſpect of its extenſion is pleaſingly great. If the ſcriptures were ſilent upon the point, circumſtances would encourage us to expect that the goſpel would render the doctrine and worſhip of one God, in time, univerſal. With its extenſion, in its purity, this doctrine and worſhip muſt neceſſarily extend. But the ſcriptures teach us that all the nations which God hath made ſhall come and worſhip before him, that the kingdoms of this world ſhall become the kingdoms of God and of his Chriſt, that his pure worſhip ſhall prevail from the riſing of the ſun to its going down, from one end of the earth to the other.

"3. *The goſpel is deſigned to aſſure all men of, and to prepare them for, a future ſtate.* I have ſhown in a former lecture the ignorance which prevailed reſpecting a future ſtate when the goſpel was introduced, and the inſufficiency of the light of nature to give ſatisfaction on this point. The doctrine of immortality is moſt clearly revealed in the New Teſtament, and it is confeſſedly of the greateſt practical utility. It leads man to conſider the preſent as only his entrance on exiſtence, the infancy of his being: that all his actions in this life muſt be brought into review hereafter, that he is ſowing ſeeds of which he muſt reap the fruit in another ſtate, when every one will be rewarded according to his works. It takes hold of his heart by preſenting the moſt ſplendid objects to his hope, and the moſt alarming objects to his fear. To prepare for a future life is the great end which the goſpel propoſes to man: and it teaches him to prepare for it by repentance, and newneſs of life; giving aſſurance of future bleſſedneſs to all the virtuous and good; but threatening with the moſt alarming puniſhment all the workers of iniquity. It connects every moment of the preſent life with a future ſtate, by reminding man that he is every moment liable to die, and that in preciſely the ſame moral ſtate in which he dies he muſt riſe again and come to judgment. It leads him to view himſelf as ſtanding every moment on the brink of an immortal ſtate. Thus it firmly maintains, and ſtrongly promotes, the intereſts of virtue, by the manner in which it teaches the doctrine of immortality.

"4. *The goſpel is deſigned to make all men righteous.* If thoſe who profeſs it are not made righteous by it, this is not owing to its giving the leaſt countenance to any vice, to its not inculcating the moſt perfect rectitude, or to its not furniſhing motives ſufficiently ſtrong, if they were duly conſidered, to induce to it. It ſtrikes at the root of every vice, it teaches the moſt perfect rectitude, and furniſhes the moſt powerful motives to purity of heart and life. It gives no encouragement for a man to imagine himſelf righteous, or that God will regard him as ſuch, any further than he feels right diſpoſitions and performs right actions. It teaches that righteouſneſs is a ſubſtantial reality, which muſt have a poſitive exiſtence in the heart and life of the man who has a legitimate claim to the character of righteous. Whatever may have been the character of the profeſſors of the goſpel, or however bounded its influence may have been, hitherto, the ſcriptures teach that a time will come when the people will be all righteous, when purity and holineſs ſhall univerſally prevail. Mankind have greatly improved ſince the goſpel has been extant among them, moral ſenſe and propriety of conduct is ſtill increaſing, and will continue to increaſe until righteouſneſs cover the earth.

"5. *The goſpel is deſigned to produce univerſal peace in the earth.* Wars are pregnant with crimes, and are productive of numerous calamities. The goſpel gives peace to all who receive and act under its influence.

It produces a peaceful diſpoſition in all who receive and obey it; teaching them to live in peace with all men, and to promote peace to the utmoſt of their power. If all men acted under the influence of the goſpel, they would be all men of peace. Chriſtianity never authoriſed wars in its defence, the cruſades undertaken in its defence are not to be charged to its account, but to a dereliction of its genuine ſpirit. The goſpel never ſays hate another, treat him ill or be at variance with him, it teaches us to love all men and to treat them with courteſy. Real chriſtians will ever be found the moſt peaceable men in ſociety, the greateſt friends to amity and concord. Every principle in the goſpel has a tendency to peace. Where the goſpel has been long extant, laws of war have been adopted which have diminiſhed its horrors, and produced ſymptoms of a peaceful tendency amid all the confuſion and din of arms. The ſcriptures plainly foretel that when the goſpel ſhall univerſally extend, and its influence be univerſally felt, wars ſhall ceaſe to the ends of the earth, the nations ſhall beat their ſwords into ploughſhares, and their ſpears into pruninghooks, nation ſhall not lift up ſword againſt nation, and none of them ſhall learn war any more. The goſpel has a natural tendency to produce this peaceful and happy ſtate of things on the earth.

"6. *Chriſtianity is deſigned to unite all mankind together as one family.* It brings them all together under one diſpenſation of divine grace and mercy, and reveals God to them as their common parent. It teaches that we are to regard all men as our neighbours, and to love our neighbours as ourſelves. The goſpel ſhows that God hath made all men of one blood, that they are all brethren, and ought to treat each other as ſuch. It makes brotherly love among chriſtians an indiſpenſible law, and an invariable rule of conduct. It proves that true ſelf-love and ſocial are the ſame, and binds men together by the tendereſt ſympathies, and a continual interchange of mutual good offices. It draws thoſe together, who come under its influence, by the ſtrongeſt ties of affection, and bonds of mutual intereſt. The diſunion, and diſcord, which have ſo long prevailed among chriſtians is not to be aſcribed to chriſtianity; but to the want of more of its genuine ſpirit, and to a diſregard of its maxims and rules. The declared deſign of the goſpel is to reconcile all men to God, and to one another: to put a total end to all animoſity, ſtrife, feuds, and diſaffection: to connect them together ſo cloſely that Jews and Gentiles ſhall be like one new man: to gather together in one, and rehead as one body, all things in Chriſt. This is ſpoken of under the idea of a new creation, and we are aſſured it will be completed.

"7. *Chriſtianity is intended to produce univerſal liberty.* This it is calculated to effect, not on the ground of viſionary ſchemes; but on the ſolid baſis of univerſal knowledge and virtue. Mankind never can be truly free any further than they become wiſe and virtuous: and the goſpel is intended to lay the foundation of univerſal liberty by making all men wiſe and virtuous. It recognizes the true dignity of man, is the beſt poſſible bill of his rights, and the ſureſt bond for their preſervation. By its light and influence becoming univerſal, and all men feeling and obeying that light and influence, priſons and fetters, captivity and corporeal reſtraint will be rendered unneceſſary, as every one will do right from inclination, and none will be found diſpoſed to oppreſs others. Chriſtianity has done much towards the eſtabliſhment of rational liberty, in thoſe nations where it has been ſuffered to operate freely: nor is there a nation, of any magnitude, to be found, that enjoys any conſiderable degree of liberty without chriſtianity; conſequently, the goſpel ought to be regarded as the charter of human liberty, the inſtrument of its reſtoration where it is loſt, and of its preſervation where it exiſts. A time of univerſal liberty and ſecurity is clearly foretold in the ſcriptures, when, in its figurative but emphatical language, they ſhall ſit every one under his own vine, and under his own fig-tree, none daring to make them afraid. This alſo conveys the idea that univerſal eaſe and plenty will obtain.

"8. Thus we come by a view of theſe ſubordinate deſigns, to the grand

concluſion, that chriſtianity will effect univerſal happineſs. As all the works of God in nature and providence are ſubſervient to the happineſs of his creatures, ſo all the operations of his goſpel, and the methods of his grace are ſubſervient to the ſame glorious end. When men univerſally become enlightened, be freed from all ſuperſtition, are filled with the hope of immortality, become truly righteous, live in the enjoyment of peace, brotherly love, liberty and plenty, they muſt be happy: univerſal happineſs will be the natural conſequence of ſuch a ſtate of things. No ſounds of diſcord will aſſail the ear; but the voice of melody and praiſe ſalute it continually. No ſights of horror pain the eye; but the whole ſcene around, like a ſmiling paradiſe, cheer and delight it. The feelings will no longer be harrowed up with ſcenes of diſtreſs which cannot be alleviated; but the viſible joys of others will ſweeten the cup of individual pleaſure. The cauſes of unhappineſs will be all removed. Much of the miſery of man ariſes from ignorance, more from ſuperſtition, more ſtill from vice, and the whole is aggravated by perſonal and national conteſts, broils, animoſities, envy and hatred: and where ſlavery adds her bitter cup, a cold damp is caſt on every enjoyment, and he becomes a wretched being. But we have ſeen that when the pure goſpel univerſally ſpreads, and its influence is everywhere felt and its authority revered, theſe evils will be removed, the principal cauſes of unhappineſs will be no more; conſequently the whole world will be happy. So far as men underſtand the goſpel, and obey its influence, they are happy now; let this be univerſally the caſe, and the effect is obvious, all muſt be made happy.

"That it is the deſign of God to make all mankind happy is clearly revealed, that a Being of infinite wiſdom and power can accompliſh this deſign cannot reaſonably be doubted, that it will be accompliſhed we are aſſured in the ſacred ſcriptures. We are directed to look forward to a time when all ſighing and ſorrow ſhall be done away:—when God ſhall wipe away all tears from the eyes of his creatures; and there ſhall be no more death, neither ſorrow, nor crying, neither ſhall there be any more pain:—when all the works of God ſhall praiſe him:—when every creature which is in heaven, and on the earth, and under the earth, and ſuch as are in the ſea, and all that are in them, ſhall unite in one ſong of praiſe to God and the Lamb:—when no enemy to the glory of God, or the happineſs of man, ſhall remain; but God ſhall be all in all.

"I ſubmit it to your conſideration, Dear Youth, whether a religion ſo infinitely benevolent, which has the purity and happineſs of all mankind for its object, and which aſſures us that this great object will be ultimately attained, could flow from any but a divine ſource."

XCIX. SELECTIONS *from the Works of Biſhop* TAYLOR, HOOKER, *Biſhop* HALL, *and Lord* BACON: *with an* ANALYSIS *of the* ADVANCEMENT *of* LEARNING. *By* BASIL MONTAGU, *Eſq. A. M. Foolſcap* 8*vo.* 370 *pages.* 7*s. Mawman.*

THE deſign of this intereſting little work ſeems to be beſt explained by the author's own words, in the following extract from his preface:

"Engaged in the completion of a laborious digeſt of a ſmall ſection of the Laws of England, I have paſſed ſome of my hours of recreation amidſt the works of a few favourite authors, to which, from my reſidence in the Univerſity, I have had eaſy acceſs. From theſe works this ſelection is made:—It is publiſhed partly with the conviction that every leſſon of ſuch teachers of truth has a tendency to meliorate our general taſte, and our taſte for moral beauty: but chiefly with the hope that I may induce ſome of my contemporaries, not accuſtomed to this train of reading, to extend their reſearches to theſe repoſitories of ſcience.—I pleaſe myſelf with thinking that this little volume will contain 'the ſlip for uſe, and part of the root for growth.'

"I ſubjoin in this preface an extract, containing ſome account of the life of Biſhop Taylor; and, at the concluſion of the volume, I have annexed an analyſis of Lord Bacon's

Advancement of Learning.'—I made the analyſis in conſequence of a ſuggeſtion, that the intricacy of the arrangement deterred many perſons from reading this valuable treatiſe, and of thinking that ſuch a ſyllabus would aſſiſt in obviating the difficulty."

As the excellent writers from whoſe works theſe Selections have been made, are probably little known to many of our readers, we ſhall give a few extracts as ſpecimens of their merit and the taſte of the editor:

ON DEATH.

"The wild fellow in Petronius, that eſcaped upon a broken table from the furies of a ſhipwreck, as he was ſunning himſelf upon the rocky ſhore, eſpied a man rolled upon his floating bed of waves, ballaſted with ſand in the folds of his garment, and carried by his civil enemy the ſea towards the ſhore to find a grave; and it caſt him into ſome thoughts: that peradventure this man's wife, in ſome part of the continent, ſafe and warm, looks next month for the good man's return; or, it may be, his ſon knows nothing of the tempeſt; or his father thinks of that affectionate kiſs which ſtill is warm upon the good old man's cheek ever ſince he took a kind farewell, and he weeps with joy to think how bleſſed he ſhall be when his beloved boy returns into the circle of his father's arms. Theſe are the thoughts of mortals; this the end and ſum of all their deſigns: a dark night and an ill guide, a boiſterous ſea and a broken cable, a hard rock and a rough wind daſhed in pieces the fortune of a whole family; and they that ſhall weep loudeſt for the accident are not yet entered into the ſtorm, and yet have ſuffered ſhipwreck. Then looking upon the carcaſe, he knew it, and found it to be the maſter of the ſhip, who the day before caſt up the accounts of his patrimony and his trade, and named the day when he thought to be at home. See how the man ſwims who was ſo angry two days ſince; his paſſions are becalmed with the ſtorm, his accounts caſt up, his cares at an end, his voyage done, and his gains are the ſtrange events of death.

"It is a mighty change that is made by the death of every perſon, and it is viſible to us who are alive. Reckon but from the ſpritefulneſs of youth, and the fair cheeks and the full eyes of childhood, from the vigorouſneſs and ſtrong flexure of the joints of five-and-twenty, to the hollowneſs and dead paleneſs, to the loathſomeneſs and horror of a three days' burial, and we ſhall perceive the diſtance to be very great and very ſtrange. But ſo I have ſeen a roſe newly ſpringing from the clefts of its hood, and at firſt it was fair as the morning, and full with the dew of heaven as a lamb's fleece; but when a ruder breath had forced open its virgin modeſty, and diſmantled its too youthful and unripe retirements, it began to put on darkneſs, and to decline to ſoftneſs and the ſymptoms of a ſickly age; it bowed the head, and broke its ſtalk; and at night having loſt ſome of its leaves and all its beauty, it fell into the portion of weeds and out-worn faces.

"When the ſentence of death is decreed, and begins to be put in execution, it is ſorrow enough to ſee or feel reſpectively the ſad accents of the agony and laſt contentions of the ſoul, and the reluctancies and unwillingneſſes of the body: the forehead waſhed with a new and ſtranger baptiſm, beſmeared with a cold ſweat, tenacious and clammy, apt to make it cleave to the roof of his coffin; the noſe cold and undiſcerning, not pleaſed with perfumes, nor ſuffering violence with a cloud of unwholeſome ſmoke; the eyes dim as a ſullied mirror, or the face of heaven when God ſhows his anger in a prodigious ſtorm; the feet cold, the hands ſtiff; the phyſicians deſpairing, our friends weeping, the rooms dreſſed with darkneſs and ſorrow; and the exterior parts betraying what are the violences which the ſoul and ſpirit ſuffer.

"Then calamity is great, and ſorrow rules in all the capacities of man; then the mourners weep, becauſe it is civil, or becauſe they need thee, or becauſe they fear: but who ſuffers for thee with a compaſſion ſharp as is thy pain? Then the noiſe is like the faint echo of a diſtant valley, and few hear, and they will not regard thee, who ſeemeſt like a perſon void of underſtanding and of a departing

intereſt."— Taylor's Holy Dying, chap. 1, 2.

The above ſtriking paſſages are among thoſe which Mr. Montagu has ſelected from Taylor's Holy Dying. We proceed to give one, which is perhaps equally beautiful, from the Sermons of the ſame very eloquent writer:

"ON PRAYER.

"Prayer is the peace of our ſpirit, the ſtillneſs of our thoughts, the evenneſs of recollection, the ſeat of meditation, the reſt of our cares, and the calm of our tempeſt; prayer is the iſſue of a quiet mind, of untroubled thoughts, it is the daughter of charity, and the ſiſter of meekneſs; and he that prays to God with an angry, that is, with a troubled and diſcompoſed ſpirit, is like him that retires into a battle to meditate, and ſets up his cloſet in the out quarters of an army, and chooſes a frontier garriſon to be wiſe in. Anger is a perfect alienation of the mind from prayer, and therefore is contrary to that attention which preſents our prayers in a right line to God. For ſo have I ſeen a lark riſing from his bed of graſs, and ſoaring upwards ſinging as he riſes, and hopes to get to heaven, and climb above the clouds; but the poor bird was beaten back with the loud ſighings of an eaſtern wind, and his motion made irregular and inconſtant, deſcending more at every breath of the tempeſt, than it could recover by the libration and frequent weighing of his wings; till the little creature was forced to ſit down and pant, and ſtay till the ſtorm was over, and then it made a proſperous flight, and did riſe and ſing as if it had learned muſic and motion from an angel, as he paſſed ſometimes through the air about his miniſteries here below."——From Taylor's Sermon, entitled The Return of Prayers, Serm. v. page 33.

The following extracts on government and revolutions are intereſting, as being the thoughts of three great men upon thoſe ſubjects. That from Hooker we think remarkably eloquent.

"ON GOVERNMENT AND REVOLUTIONS.

"In Orpheus's theatre, all beaſts and birds aſſembled, and, forgetting their ſeveral appetites, ſome of prey, ſome of game, ſome of quarrel, ſtood all ſociably together, liſtening unto the airs and accords of the harp, the ſound whereof no ſooner ceaſed, or was drowned by ſome louder noiſe, but every beaſt returned to his own nature; wherein is aptly deſcribed the nature and condition of men, who are full of ſavage and unreclaimed deſires of profit, of luſt, of revenge; which, as long as they give ear to precepts, to laws, to religion, ſweetly touched with eloquence and perſuaſion of books, of ſermons, of harangues, ſo long is ſociety and peace maintained: but if theſe inſtruments be ſilent, or that ſedition and tumult make them not audible, all things diſſolve into anarchy and much confuſion."—Bacon on the Advancement of Learning, b. 1.

"Since the time that God did firſt proclaim the edicts of his law upon it, heaven and earth have hearkened unto his voice, and their labour hath been to do his will, 'He made a law for the rain;' he gave his 'decree unto the ſea,' that the 'waters ſhould not paſs his commandment.' Now, if nature ſhould intermit her courſe, and leave together, though it were for a while, the obſervation of her own laws; if thoſe principal and mother elements of the world, whereof all things in this lower world are made, ſhould loſe the qualities which now they have; if the frame of that heavenly arch erected over our heads ſhould looſen and diſſolve itſelf; if celeſtial ſpheres ſhould forget their wonted motions, and by irregular volubility turn themſelves any way as it might happen; if the prince of the lights of heaven, which now, as a giant, doth run his unwearied courſe, ſhould as it were, through a languiſhing faintneſs, begin to ſtand, and to reſt himſelf; if the moon ſhould wander from her beaten way, the times and ſeaſons of the year blend themſelves by diſordered and confuſed mixture, the winds breathe out their laſt gaſp, the clouds yield no rain, the earth be defeated of heavenly influence, the fruits of the earth pine away, as children at the withered breaſts of their mother, no longer able to yield them relief; what would

become of man himſelf, whom theſe things do now all ſerve? See we not plainly, that obedience of creatures unto the law of nature is the ſtay of the whole world?

"Of law there can be no leſs acknowledged, than that her ſeat is the boſom of God; her voice the harmony of the world: all things in heaven and earth do her homage; the very leaſt as feeling her care, and the greateſt as not exempted from her power. Both angels and men, and creatures of what condition ſoever, though each in different ſort and manner, yet all with uniform conſent, admiring her as the mother of their peace and joy."—Hooker's Eccleſiaſtical Polity.

"We have not only felt the evils of an inteſtine war, but God hath ſmitten us in our ſpirit. But I delight not to obſerve the correſpondencies of ſuch ſad accidents, which, as they may happen upon divers cauſes, or may be forced violently by the ſtrength of fancy, or driven on by jealouſy, and the too fond opinings of troubled hearts and afflicted ſpirits; ſo they do but help to vex the offending part, and relieve the afflicted but with a phantaſtic and groundleſs comfort: I will therefore deny leave to my own affections to eaſe themſelves by complaining of others: I ſhall only crave leave that I may remember Jeruſalem, and call to mind the pleaſures of the temple, the order of her ſervices, the beauty of her buildings, the ſweetneſs of her ſongs, the decency of her miniſtrations, the aſſiduity and œconomy of her prieſts and Levites, the daily ſacrifice, and that eternal fire of devotion that went not out by day nor by night: theſe were the pleaſures of our peace; and there is a remanent felicity in the very memory of thoſe ſpiritual delights which we then enjoyed as antepaſts of heaven, and conſignations to an immortality of joys. And it may be ſo again when it ſhall pleaſe God, who hath the hearts of all princes in his hand, and turneth them as the rivers of waters; and when men will conſider the invaluable loſs that is conſequent, and the danger of ſin that is appendant, to the deſtroying ſuch forms of diſcipline and devotion in which God was purely worſhipped, and the church was edified, and the people inſtructed to great degrees of piety, knowledge, and devotion." — Taylor's Polemical Diſcourſes.

We underſtand that Mr. Burke was an ardent admirer of the works of Biſhop Taylor; and the above paſſage ſeems to confirm our opinion.

Sir Walter Raleigh, though his name is not mentioned in the title, is one of the writers from whoſe works ſome paſſages have been ſelected. The following letter of his is truly affecting:

"SIR WALTER RALEIGH'S LETTER TO HIS WIFE AFTER HIS CONDEMNATION.

"You ſhall receive, my dear wife, my laſt words in theſe my laſt lines; my love I ſend you, that you may keep when I am dead, and my counſel, that you may remember it when I am no more. I would not with my will preſent you ſorrows, dear Beſs; let them go to the grave with me, and be buried in the duſt. And ſeeing that it is not the will of God that I ſhall ſee you any more, bear my deſtruction patiently, and with an heart like yourſelf.

"Firſt, I ſend you all the thanks which my heart can conceive, or my words expreſs, for your many travels and cares for me; which though they have not taken effect as you wiſhed, yet my debt to you is not the leſs; but pay it I never ſhall in this world.

"Secondly, I beſeech you, for the love you bare me living, that you do not hide yourſelf many days, but by your travels ſeek to help the miſerable fortunes and the right of your poor child. Your mourning cannot avail me that am but duſt.

"Thirdly, you ſhall underſtand, that my lands were conveyed *bonâ fide* to my child; the writings were drawn at midſummer was twelvemonths, as divers can witneſs; and I truſt my blood will quench their malice who deſired my ſlaughter, that they will not ſeek alſo to kill you and yours with extreme poverty. To what friend to direct you I know not, for all mine have left me in the true time of trial. Moſt ſorry am I, that, being thus ſurpriſed by death, I can leave you no better eſtate; God

hath prevented all my determinations, —that great God which worketh all in all; and if you can live free from want, care for no more, for the reſt is but a vanity: love God, and begin betimes, in him you ſhall find true, everlaſting, and endleſs comfort; when you have travelled and wearied yourſelf with all ſorts of worldly cogitations, you ſhall ſit down by ſorrow in the end. Teach your ſon alſo to ſerve and fear God whilſt he is young, that the fear of God may grow up in him; then will God be an huſband to you, and a father to him,—an huſband and a father that can never be taken from you.

"Baylie oweth me a thouſand pounds, and Aryan ſix hundred; in Jerneſey alſo I have much owing me. Dear wife, I beſeech you, for my ſoul's ſake, pay all poor men. When I am dead, no doubt you ſhall be much ſought unto, for the world thinks I was very rich: have a care to the fair pretences of men, for no greater miſery can befall you in this life, than to become a prey unto the world, and after to be deſpiſed. I ſpeak (God knows) not to diſſuade you from marriage, for it will be beſt for you, both in reſpect of God and the world. As for me, I am no more yours, nor you mine; death hath cut us aſunder, and God hath divided me from the world, and you from me. Remember your poor child for his father's ſake, who loved you in his happieſt eſtate. I ſued for my life, but God knows it was for you and yours that I deſired it: for know it, my dear wife, your child is the child of a true man, who in his own reſpect deſpiſeth death and his mis-ſhapen and ugly forms. I cannot write much; God knows how hardly I ſteal this time when all ſleep; and it is alſo time for me to ſeparate my thoughts from the world. Beg my dead body, which living was denied you, and either lay it in Sherborn or Exeter church, by my father and mother. I can ſay no more; time and death calleth me away. The everlaſting God, powerful, infinite, and inſcrutable God Almighty, who is goodneſs itſelf, the true light and life, keep you and yours, and have mercy upon me, and forgive my perſecutors and falſe accuſers, and ſend us to meet in his glorious kingdom. My dear wife, farewell; bleſs my boy, pray for me, and let my true God hold you both in his arms.

"Yours that was, but
"now not mine own,
"WALTER RALEIGH."

The next paſſage is Biſhop Hall's; it is one of thoſe that are ſelected from his Art of Divine Meditation, and poſſeſſes great ſublimity.

"FROM THE ART OF DIVINE MEDITATION.

"As travellers in a foreign country make every ſight a leſſon, ſo ought we in this our pilgrimage. Thou ſeeſt the heaven rolling above thine head, in a conſtant and unmoveable motion: the ſtars ſo overlooking one another, that the greateſt ſhow little, the leaſt greateſt, all glorious: the air full of the bottles of rain, or fleeces of ſnow, or divers forms of fiery exhalations: the ſea under one uniform face, full of ſtrange and monſtrous ſhapes beneath: the earth ſo adorned with variety of plants, that thou canſt not but tread on many at once with every foot: beſides the ſtore of creatures that fly above it, walk upon it, live in it. Thou idle truant, doſt thou learn nothing of ſo many maſters?" Ch. iv.

Every endeavour to encourage the reading of Bacon's Advancement of Learning is highly commendable; and we ſincerely hope that the Analyſis, which concludes this intereſting volume, will have that effect; as it appears to give a good outline of the deſign and ſcope of that great work. We give the following as a ſpecimen:

"2. Defects of univerſities.

"*Firſt defect.* Colleges are all dedicated to profeſſions.

"1. This is injurious to the advancement of general knowledge.

"*If you will have a tree bear more fruit than it hath uſed to do, it is not any thing you can do to the boughs; but it is the ſtirring of the earth, and putting new mould about the roots that muſt work it.*

"2. It is injurious to government that there is not any collegiate education for ſtateſmen.

"*Second defect.* The ſalaries of lecturers are too ſmall.

"*Obſerve David's military law*—'*That thoſe which ſtaid with the carriage ſhould have equal part with thoſe that were in action.*'

"*Third defect.* There are no funds for providing models and defraying the expences of experiments.

"*Fourth defect.* There is a neglect in the governors of conſultation, and in ſuperiors of viſitation as to the propriety of continuing or of amending the eſtabliſhed courſes of ſtudy.

"1. Young men ſtudy too ſoon logic and rhetoric.

"*Minds unfraught with matter ſtudying theſe arts, is, as it were, learning to paint the air.*

"2. There is, in the exerciſes, too great a divorce between invention and memory.

"*Fifth defect.* There is a want of mutual intelligence between the different univerſities of Europe.

"*Sixth defect.* There is a want of proper rewards for enquiries in new or unlaboured parts of learning."

The Analyſis is illuſtrated throughout with extracts; and at the end is a table, on a half-ſheet, of all the principal heads, ſhowing how they branch out from each other.

C. TRAVELS *from Berlin through Switzerland to Paris in the Year* 1804, *by* AUGUSTUS VON KOTZEBUE. *In Three Volumes. Vol. II. Phillips.*

[*Continued from page* 528.]

WE now proceed to the *Second* Volume of this entertaining work—here we were pleaſed with the Author's account of the Muſeum of French Monuments. "This is now inconteſtably one of the greateſt curioſities in Paris. Heart, genius, taſte for the arts, imagination, are all rouſed upon entering this ſanctuary. Alexander Le Noir, the founder and preſident of this muſeum, a man animated with the moſt fervent zeal, has, in conſequence of his being charged by the government, collected from all the deſtroyed caſtles, churches, and convents, about *ſix hundred French monuments*, many of which go back as far as the *ſixth* century, and each, without exception, inſpiring the moſt powerful intereſt, on account of its value in the arts, the opportunity it affords of obſerving their progreſs as an hiſtorical record, or even merely becauſe it excites the imagination of the beholder. A ſuppreſſed convent of the Auguſtine monks (*des petites Auguſtines*) is deſtined for the exhibition of theſe treaſures. The antiquated premiſes, including yards and gardens, have been charmingly appropriated to this purpoſe. What the ruthleſs Vandaliſm of the revolution had either mutilated or deſtroyed, has been repaired, as much as poſſible, by the diligent *Le Noir*. He was preſent and active every where, and made, for inſtance, very intereſting obſervations, at the digging up of the corpſes in the Abbey of St. Dennis. Many perſons, buried in ſtone coffins (a cuſtom derived from the firſt era of the monarchy), were found with their dreſs in complete preſervation, with a variety of implements by their ſides, which had either been, or were intended for their uſe. Unfortunately the barbarians of the laſt century tore the dreſſes in pieces, and the metal was carried to the mint.

"Your firſt entry is through the *cidevant* church, full of monuments of different ages, ranged in chronological order, and ornamented with picturesque groupes. From hence you proceed beneath awful vaults, the painted windows of which permit only a dubious light to glimmer through them. There, on its rude ſhrine, is ſeated the *thirteenth century*. Kings and queens, hewn out of rude maſſes of ſtone, with folded hands, here lie in torpid modeſty upon their coffins: all that ſurrounds you, the very window panes included, are coeval with thoſe hoary epochs of antiquity. It is impoſſible to ſtroll about in the twilight of theſe tombs, without being ſtruck with a ſacred awe.

"Through a paſſage reſembling a cavern, you enter a Gothic hall, ſacred to the fourteenth century

where every pillar, nay, every decoration of ſtone, is really a relic of thoſe times which gave exiſtence to the monuments expoſed. In this manner the ſpectator, bidding defiance to ages, goes, with feelings inexpreſſible, through one century after another, till he comes to the eighteenth, wanders at laſt through the ſhady bowers of *Elyſium* (formerly the garden of the monaſtery), ſees there great men recorded in hiſtory, or tarries here at the grave of the amiable La Fontaine!!

"I hope I ſhall not prove tedious, if I briefly name and mark, with ſome additional ſtrokes of the pencil, that which ſtruck *me* the moſt. You ſcarcely enter the church, but you ſee a ſtone altar to the right, which ſome merchants of Paris, in the reign of the emperor Tiberius, raiſed to Jupiter. Among its decorations you recognize Mercury, Bacchus, and Venus, and rejoice in the conſtancy of the Pariſians, who have not ceaſed for 1800 years to worſhip thoſe divinities. This ſtone, with a Greek inſcription, covered a loving pair, Philocares and Timagore. No high-ſounding praiſe blazons forth their conjugal affection, but ſimply eloquent is the *bas-relief*, where they heartily *ſhake hands* upon entering the infernal regions.

"Greeting to Moſchus, the ſon of Moſchus!" are the few words which yonder tomb-ſtone of Pariſian marble addreſſes to thee. They are directed to a celebrated poet, who died in Sicily 285 years before our era. No flattering encomiums profane his memory; but, after the expiration of two thouſand years, every paſſenger, even at this day, gently hails him, ſaying, 'Greeting to Moſchus!'

"What a long ſeries of Grecian names are engraved on yon large marble table! They were brave men of the race of the *Erechtbides*, who fell in the field of battle. The gratitude of their fellow citizens engraved their names on this marble, which was raiſed ſoon after the death of Cymon, in the time of the Peloponneſian war, two thouſand three hundred years ago. Who can view theſe characters without ſeeing before his eyes the Grecian world now almoſt become a fable? The viſitor paſſes with more indifference that uncouth vaſe, of which pious tradition affirms, that it was uſed at the *nuptials in Canaan*.

"Smiling, I ſtop before a ſtrange ſepulchral monument, appertaining to the ſixth century. It is conſecrated to Dagobert I., who ſtained his victories with luſt and cruelty; who, without reckoning his concubines, was at one time betrothed to three queens. But he expiated all his ſins, and was numbered among the ſaints, by building the Abbey of St. Dennis. His epitaph relates, in the moſt ludicrous *baſſo-relievos*, how he fared after his death. Begin from below, where Dagobert's corpſe lies extended. A little higher up follows a boat full of devils, who are holding faſt Dagobert's ſoul, and tormenting it. If the artiſt deſigned to repreſent the devils as ugly and frightful, he has wholly miſſed his aim, for they are all groteſque figures, with human bodies, and the heads of frogs, dogs, &c. In order to ſhew that the man, whom the demons are thus teazing and tormenting, is not in reality a man, but merely a ſoul, the artiſt has not repreſented his genitals. Perhaps he was not altogether miſtaken. But had he in the ſame manner repreſented him as wanting a *ſtomach*, he would at leaſt have excluded every thing that prevents a man from being a *ſoul*. Farther up you ſee, beſides two angels, St. Dennis and St. Martin, whom Dagobert invoked in his diſtreſs, and who retook the royal prize from the devils, on which occaſion ſeveral imps of hell, with frogs' heads, tumble in a moſt laughable poſture into the water. Still higher, the ſoul, between its two deliverers, ſtands enveloped in a linen cloth, perfumed by angels with cenſers of frankincenſe. At the very ſummit, the ſaints are kneeling before Abraham, whom they beg to receive the ſoul into his capacious boſom. A couple of ſtatues are likewiſe to be ſeen, formerly placed on both ſides of the monument, the one Nantilda, wife of Dagobert, the other their ſon Clovis.

"With more ſerious feelings, uttering both curſes and bleſſings, I now ſtand between the monuments of *Fredegunda* and *Bertruda*; the former murdered her own huſband, and

was an enemy to God and men*; the latter was indefatigably employed in ſoftening, by her feminine gentleneſs, the rude diſpoſition of her huſband, and ſaving every victim deſtined to deſtruction by his bloodthirſty tyranny. The ſon of Fredegunda, Clotaire II. was her huſband, and he himſelf ordered both monuments to be erected.

"What an oppreſſive ſenſation of woe ſeized me, upon ſtepping into that cloſet, whoſe ſtyle of architecture announces the twelfth century! O! theſe pillars, theſe ruins, once belonged to the *Paraclete*, and in the middle of them is a tomb—'tis ABELARD'S! the identical ſepulchre which Peter the venerable dedicated to his friend. Here lies Abelard, with his head reclined, and his hands folded. Near him repoſes his faithful miſtreſs; and the heads of theſe intereſting figures are impreſſions taken by the ſculptor; and, what is more than all, this tomb actually contains the united aſhes of the two lovers—Abelard! Heloiſa! this ſtone calls out to me. I lay my hand upon it: Cold ſtone! I am going to ſay, and ſuddenly draw it back, for this ſtone is not cold! An inſcription, of which Marmontel is ſaid to be the author, is ſo ſimply beautiful, that I gladly tranſcribe it:

"Hic
Sub eodem Marmore jacent
Hujus monaſterii
Conditor PETRUS ABELARDUS
Et abbatiſſa prima HELOISA,
Olim ſtudiis, ingenio, amore, infauſtis nuptiis
Et pœnitentia,
Nunc æterna, quod ſperamus, Felicitate conjuncti.

"Here lie
under the ſame marble,
PETER ABELARD,
The founder of this convent,
and
HELOISA,
Its firſt abbeſs,
Formerly united in ſtudies, genius, love, unhappy wedlock, and repentance,
Now, as we hope, in eternal happineſs.

"Every lovingcouple, who are ſo happy as to viſit the thouſand curioſities of Paris, hand in hand, ſhould renew the oath of fidelity at this tomb. Let them caſt a look of contempt as they paſs by on yonder tombſtone, which covered the bones of Abelard's perſecutor, the Abbé Adam. This blind fanatic, as abbot of St. Dennis, ordered Abelard's incarceration, becauſe he dared to utter the unheard-of hereſy, that the bones kept as the relics of St. Dionyſius, or Dennis, were not the real bones of that holy Areopagite, who had never been in France.

"That little box, decorated with ivory and tortoiſeſhell, deſerves, by all means, a look of curioſity. Louis XI. brought it back from his cruſade in Paleſtine, full of relics, and it has ſince been worſhipped in the holy chapel at Paris as a relic, though its *bas-reliefs* very plainly repreſent the expedition of the Argonauts in queſt of the golden fleece. In this manner Pagan obſcenities have before now often ſerved as ornaments to enſhrine the relics of the ſaints.

"The great *bas-relief*, which here attracts the eye, has been taken from the abbey of St. Dennis, and is only remarkable for the ſingularity of its component parts. It repreſents the *paſſion of Chriſt, having St. Euſtachius* on one ſide, and *the young men in the fiery furnace* on the other. The *bas-relief*, repreſenting the annunciation of Mary, is not leſs droll. The Virgin, praying, views with aſtoniſhment the youthful Gabriel, who, in the dreſs of a *petit maitre* of thoſe times, without daring to ſpeak, very modeſtly unrolls a manuſcript, containing the ſubject of his errand. On the top is God the Father, with his face gilded entirely over, and out of his mouth the Holy Ghoſt flies ſtraight to Mary.

"The eye gladly dwells on that ſtatue of white marble, which perpetuates the memory of that excellent lady, Valentine of Milan, ſpouſe of the duke of Orleans, who was murdered at Paris in the year 1407, and whoſe loſs the good Valentine could not ſurvive. She died of a broken heart in 1408. Her moving device was a watering pot, from which trickle drops in the form of tears, with this circumſcription:

Rien ne m'eſt plus.
Plus ne m'eſt rien.

"That ſtatue of Peter of Navarre

* This is the name given her by Gregory of Tours.

reminds us of the ſingular death of his father, Charles II. denominated the Wicked. The avenging Nemeſis held him up as a terrible example. A kind of torpor ſeized him, and he was unable to move a limb. The phyſicians then adviſed him to have himſelf ſewed up very cloſely in a linen ſheet, previouſly ſteeped in brandy. It was at night when he went to bed, that this kind of ſack was put about him. One of the chambermaids ſewed it faſt under his chin, and, having done, ſhe was going to cut off the remaining end of the thread, but having no ſciſſars ſhe took the candle to burn it off; in an inſtant the king was all in flames; the affrighted chambermaid ran away, amidſt violent ſhrieks, and Charles the Wicked was burnt alive in his bed.

"Another marble ſtatue reminds the preſent generation of Charles of Orleans, who inſpires intereſt by being the great grandfather of Francis I. and ſtill more as an amiable poet.

"Let us paſs by the ſtatue of Iſabel of Bavaria, who, loathſome to nature herſelf, was carried on a bier to St. Dennis, followed only by a ſingle prieſt. Rather let us tarry near the buſt of the Maid of Orleans, in whoſe ſoft feminine features we in vain ſeek the courage by which the man who ſtands beſide her was kept on his throne. But it may eaſily be ſeen in this man, that he was daſtard enough to deliver up his preſerver a prey to the fury of fanaticiſm, even without venturing to make a ſingle attempt for her deliverance.

"A precious monument of the arts, as well as an intereſting ſubject of hiſtory, is this kneeling ſtatue of Philip de Villiers L'Iſle d'Adam, grand maſter of the order of St. John of Jeruſalem, who, at the celebrated ſiege of Rhodes, by his bravery and ſkill, reſiſted 200,000 Turks, till the perfidy of his chancellor Amaral forced him into a ſurrender. Charles V. preſented him with Malta, and after his death all his knights deplored him as a hero and a father. On his tombſtone has been engraved this fine encomium: *Here reſts Virtue, vanquiſhing Fortune.*

"With awful reverence I enter a chapel, dedicated to Francis I. reſtorer of the arts. The corpſe of this good man, as well as that of his ſpouſe, Claude de France, are imitated with ſtriking truth in marble; and the bas-reliefs, placed here and there, intereſt, by a faithful repreſentation of the dreſſes, arms and implements of war in thoſe times. Above the timber work, ſupported by ſixteen Ionic columns, appear again the ſtatues of the royal pair, ſurrounded by their beloved children, kneeling and praying. The formal court and ſtate-dreſſes make a ſad contraſt with the uniform of Death below. Again I find another ſtatue of the corpſe of the royal friend of da Vinci, moſt ingeniouſly ſculptured in white marble; and I obſerve with regret that the boyiſh petulance of ambition was quite as active as it is at this day in prophaning the moſt ſacred monuments, by ſcrawling obſcure names upon them. In this diſgraceful manner have been ſinfully eternized, for example, one Hugues Bétauld, in 1580, and one Lormel, in 1584, &c. &c. on the monument of Francis I.

"This fine column, hung with laurels and vine leaves, carries on its top the image of Juſtice, and once contained the heart of the noble Conſtable Montmorency, together with that of a king, who wiſhed to be united with his friend both living and dead. The inſcription wants taſte, but by no means affection.

"Though the king is only mentioned in the four laſt lines, I ſcarcely know to whom the inſcription does moſt honour; whether to the faithful ſervant, of whom there are ſo many, or to the affectionate king, of whom there are ſo few.

"I would not ſtop a moment before the kneeling ſtatue of the chancellor René Birague, (who with the abhorred Catherine de Medicis, waded through torrents of blood ſhed in the night of St. Bartholomew,) did not the ſight of his ſpouſe under his feet arreſt my attention. Dreſt in the coſtume of her time, ſhe repoſes on ſoft pillows, and ſupports her plump cheeks with her fleſhy hand; before her is placed a book, which ſhe ſeems ſlightly to peruſe, while a teazing lap-dog does all he can to prevent her. What a quiet image of the calm enjoyment of life unſuſpecting the ſtratagem of Death, which

is lurking near in ambuſh! Yet only look down on the *bas-relief* of her couch, and you find the ſame woman a lifeleſs corpſe; the full round features are vaniſhed; the ſparkling eye is ſunk deep; and the rich veſtment changed into a melancholy winding-ſheet. This contraſt of life and death makes a deep impreſſion on the beholder, and the whole appears leſs a monument than a ſatire upon human life.

"Whoſe ſtatue is it, round which I have ſeen groups of Frenchmen of the old ſchool collected with ſentimental gravity? It is the good king Henry IV. whom the republicans never will forget. No repreſentation of him is a greater reſemblance than this ſtatue. The truth of this is averred by Le Noir, who was preſent at St. Dennis when his coffin was opened, and his body found in full preſervation.

"In honour of the art, but in ſpite of the pompous inſcription to his own diſgrace, you here find, kneeling, Albert Gondi, a marſhal of France, who taught Charles IX. to ſwear and murder. Let's quickly away to yon female form: Claude Catherine de Clermont Tonnerre, the protectreſs and even intimate ſiſter of the ſciences. It was ſhe who, inſtead of her miſtreſs, anſwered in Latin the Poliſh ambaſſadors who brought to the ſon of Catherine de Medicis the decree of his election to the throne of Poland; it was ſhe who delivered ſuch an elegant oration, as to make the old chancellor, Biragué, who anſwered for Charles IX., aſhamed of himſelf. The inſcription calls her, *Heroina cum quavis priſci ævi comparanda.*

"I had never before heard the name of Dominique Sarrede mentioned; but how gladly my eye dwells on his buſt, ſince I know how faithfully he loved Henry IV! He loſt a leg in the battle of Ivry. This, however, did not prevent him from devoting his farther ſervices to his excellent ſovereign. His grief at the aſſaſſination of the beſt of maſters was ſuch, that paſſing, two days after the perpetration of the horrid deed, through the ſtreet called *Rue de la Feronnerie*, he fell down ſenſeleſs on the ſpot where it happened, and died the next morning.

"The monument of the honeſt preſident Pibrac, of the ſixteenth century, is covered with a ſtone, containing his life in Latin, and four French ſtanzas, in which, indeed, all the philoſophy of the life of a prudent and honeſt man is compreſſed.

"Hail, Philip Deſportes, thou amiable, erotic poet, who, beloved, honoured, and rewarded by three kings, diedſt in plenty and peace! In peace? Scarcely couldſt thou ever forget, that Diana de Coſſé Briſac, thy charming miſtreſs, ſurpriſed by her huſband in thy arms, fell a bloody victim of furious jealouſy! Is there a more horrible deſtiny for a lover! —Alas! and yet Deſportes could forget Diana. An Hippolyte, a Laura, ſoon replaced the ill-fated fair one. I ſhall not ſtop longer before his monument.

"With reſpect I paſs by the man whoſe life is buſily recorded on this *bas-relief* by the muſe of hiſtory. It is the celebrated hiſtorian De Thou.

"The phyſiognomiſt will find an intereſt in that ſtatue of Charlotte Catherine de la Tremouille, accuſed of having poiſoned her huſband, but acquitted by the parliament. As this image is ſaid to be a ſtriking likeneſs, the phyſiognomiſt may decide whether ſhe has been juſtly accuſed or acquitted; I believe the former.

"Girardon's celebrated maſterpiece of Richelieu's monument, I have in former years admired in the Sorbonne. But it is memorable and honourable to the director of the muſeum, that he riſked his life in reſcuing it from the hands of the Vandals, on which occaſion he was wounded with a bayonet.

"That Scottiſh youth, of the Douglas family, died on the bed of honour in the twenty-fourth year of his age; a lady cauſed this monument, with the following expreſſive antique French inſcription, to be placed to his memory:

"Prou de pis, peu de pair, point de plus.

"This princeſs of Conti, who, beautiful and virtuous, was ſnatched from the world in the thirty-fifth year of her age, was ſcarcely nineteen years old, when ſhe ſold her jewels to relieve the poor in a famine. Tender of conſcience, ſhe made reſtitution of all thoſe eſtates the poſ-

ſeſſion of which appeared in the leaſt ſuſpicious to her, and the amount of them is eſtimated at 800,000 livres. The look with which you part from her *bas relief*, is benevolence from the heart.

" Another emotion ſublimely affecting pervades my frame, if I look at the ſuperb monument which Charles Le Brun raiſed to his mother. An angel with a trumpet hovers over her coffin, the call of the reſurrection is ſounded, the matron hears it, raiſes the lid of her coffin, and gladly awaking from a long ſlumber, riſes out of her grave. Art lent a hand to filial duty: the expreſſion of the figure is admirable; a fervent deſire after the celeſtial light ſeems to beam on the countenance of the bleſſed parent.

" Thanks to the ingenious Girardon, for the great leſſon he gave on the monument of Louvois to all ſtatesmen. Hiſtory holding an open book, turns her eyes bedewed with tears towards Louvois, and ſeems to ſhew him in her annals that paſſage which perpetuates his cruelty to the Palatinate.

" The two French lines ſubjoined to the Latin epitaph of the poet Santeuil, are more ſtriking than intelligible.

" Cy git le celebre Santeuil!
Muſes et fous prenez le deuil.

" A compoſition unique in its kind.

" This Melpomene, reclining weeping over Crebillon's buſt, reminds me of a droll anecdote. This monument was deſtined for the church of St. Gervais, where Crebillon lies buried; but the prieſt declared that he would not ſuffer his ſanctuary to be profaned by ſuch an ungodly monument, unleſs the muſe and Crebillon's buſt were removed! In the ſame manner the performance of Schiller's Don Carlos, was prohibited at the pious theatre in D**, if the paſſion of Don Carlos for his ſtep-mother was not omitted.

" I copy the beautiful inſcription under the medallion, becauſe D'Alembert is the author of it:

" François de Chevert, Lieutenant Général, etc.
Sans ayeux, ſans fortune, ſans appui,
Orphelin dès l'enfance,
Il entra au ſervice à l'age de XI. ans;
Il s'éleva, malgré l'envie, à force de mérite,
Et chaque grade fut le prix d'une action d'éclat.
Le titre ſeul de Maréchal de France
A manqué, non pas à ſa gloire,
Mais à l'exemple de ceux qui le prendront pour modèle.

" Noble, pious, and ſublime ſentiments are impreſſed by all theſe monuments of great men and excellent females, upon the cultivated mind of every perſon who walks amongthem; but a melancholy horror damps thoſe ſenſations, and our arms are involuntarily ſtretched out, if we find here and there in this Elyſium the aſhes of our favourites, the aſhes of men whoſe writings and actions we have carried in our hearts from our infancy. There I ſee a ſepulchral monument ſurrounded with comic maſks; it covered the remains of Molière. The ſimple inſcription ſays:

" Molière et Thalie repoſent dans ce tombeau.

" The whole is encompaſſed by roſes, myrtles, and cypreſs trees. Here lies this great man of immortal celebrity, to whom the archbiſhop of Paris refuſed a chriſtian burial.

" This ſarcophagus contains the aſhes of Réné Deſcartes, which his friend Dalibert brought back to his country from Sweden, where he died. Beneath this ſtone reſts Lafontaine; two *bas-reliefs* repreſent two of his favourite fables, and you read: *Ici tu Lafontaine eſt dans ce tombeau*, and there again: *Jean s'en alla comme il étoit venu*, the firſt line of his epitaph, which he himſelf compoſed:

" Jean s'en alla comme il étoit venu,
Mangeant le fonds avec le revenu,
Tint les treſors choſe peu neceſſaire.
Quant à ſon temps, bien ſut le diſpenſer:
Deux parts en fit, dont il voulait paſſer
L'une à dormir, et l'autre à ne rien faire.

" Yon ſtone conceals the remains of Boileau. Three lines from his epiſtles are engraved on it:

" Ainſi que mes chagrins, mes beaux jours ſont paſſés:
Je ne ſens plus l'aigreur de ma bile prémière,
Et laiſſe aux froids rimeurs une libre carrière.

" Here repoſes Mabillon, the learned critic and diplomatiſt; there Montfaucon, the great antiquarian.

" How can I expreſs my feelings

in wandering among the shades which hover over these venerable remains? In short, there was not a remarkable man in France, of whom you are not reminded in this museum, were it even by a bust, of which there is a vast number. Here Montaigne, Sully, Rotrou, Corneille; there Racine, Quinault, Fénélon, Lenostre; here Bossuet, the two Rousseaus, Detouches; there Heloisa and Abelard, Louis XVI. and Marie Antoinette; here prince Maurice of Saxony, Montesquieu, the centenary Fontenelle, and the German Winkelmann; there Helvetius, Piron, (with the famous epitaph, *ci gît, que ne fut rien: pas même Academicien*) Du Belloy, and Voltaire, with this inscription by the consul Le Brun:

O Parnasse! frémis de douleur et d'effroi;
Pleurez, Muses, brisez vos lyres immortelles;
Toi dont il fatigua les cent voix et les ailes,
Dis que Voltaire est mort, pleure et repose-toi.

"Here Buffon, the noble Malesherbes, D'Alembert, and Diderot; there Raynal, Bailly, Vaucanson, and the German Gluck, with this inscription:

Il préféra les muses aux syrènes.

What a delight for a thinking and feeling being, to be every where placed before the likenesses of men who did great actions, said excellent things, or invented useful ones; to make, as it were, a personal acquaintance with each of them, and to examine whether his features are congenial to his mind. The treasures of art, in the Museum Napoleon, are infinitely more costly; and the Apollo of Belvedere alone, in point of art, may probably counterbalance the whole Museum of French Monuments: but admiration seldom warms the heart, and has never, at least, prepared such a luxurious treat to my fancy, as I found among the tombs and monuments of great men.

Cl. MODERN LONDON; *being the History and Present State of the British Metropolis; illustrated with nearly sixty engravings.* 4to. 3*l.* 3*s.* *Phillips.*

WE present our readers with the following extract, giving an account of a scientific establishment now extremely popular in the metropolis.

"The Royal Institution owes its origin to the noblemen and gentlemen composing the Society for bettering the Condition of the Poor, at whose meetings the plan of its foundation was first laid, and afterward matured by the exertions and talents of Count Rumford, who may, in fact, be denominated its founder.

"The meetings of the institution commenced in the year 1800, shortly before which his majesty had been pleased to grant the proprietors a charter of incorporation by the name of 'THE ROYAL INSTITUTION OF GREAT BRITAIN,' *for the Purpose of diffusing the Knowledge, and facilitating the general Introduction, of useful Mechanical Inventions and Improvements; and for teaching by Courses of Philosophical Lectures, and Experiments, the Application of Science to the common Purposes of Life.*

"The government of the institution is vested in the committee of managers, consisting of the president, fifteen managers, and the secretary, chosen by and from among the proprietors: of these fifteen managers one third is elected annually, on the first day of May. There is also a committee of visitors, consisting of the president, fifteen visitors, and the treasurer, elected at the same time with the managers, one third of whom are renewed annually.

"The house of the institution is situated in Albemarle-street, and is extremely spacious, and well adapted to the purposes to which it is applied. On entering the hall on the right is the room in which the proprietors and subscribers read the foreign newspapers, and periodical publications. This room opens into the reading library, containing the books presented by various gentlemen since the opening of the institution.

"On the left of the hall is the clerk's room; next to which is the room where the proprietors and subscribers read the English newspapers.

"Beyond the hall is the room in which the managers hold their meetings for the transacting of the business of the institution.

"Ascending the staircase, which

is extremely beautiful, on turning to the right is the room lately denominated the apparatus room, but now containing the mineralogical collection forming by the exertions of Mr. Profeſſor Davy. This room communicates with the lecture room, the road to which is by a gallery ſurrounding it. This room, which is ſemicircular, was deſigned by Mr. Webſter, late clerk of the works for the inſtitution, and is a happy effort of his knowledge and genius. It is fitted up with riſing benches with cuſhions, for the accommodation of nine hundred perſons; and there is a gallery round it which will hold two hundred more. It is lighted from a dome, which has a moveable ſcreen for the purpoſe of ſhutting out the light, which is ſometimes neceſſary in ſhewing ſome particular chemical experiments.

"On the ſecond floor are apartments for the profeſſor, and thoſe perſons belonging to the eſtabliſhment to whom the managers have thought proper to allot rooms for their more convenient attendance.

"On the left of the ſtaircaſe is the room which was lately the ſmall lecture room, now fitted up for the library and collection of reference. This promiſes to be one of the moſt uſeful undertakings which has ever been projected in the metropolis.

"On the baſement ſtory is the kitchen, fitted up with ſtoves, roaſters, and boilers, according to the plans of Count Rumford publiſhed in his Eſſays. Here is alſo the apparatus for heating water by means of ſteam, a moſt ingenious invention, which is fully explained in the ſecond number of the Journals of the inſtitution. Adjoining is the chemical laboratory, lately fitted up according to the plan of one of the managers, on a ſcale of magnitude hitherto not attempted in this country, with ſuitable accommodations for the ſubſcribers who may attend the experimental lectures delivered here by the profeſſor of chemiſtry.

"Mr. H. Davy, the profeſſor of chemiſtry, reads lectures on philoſophical chemiſtry three days in the week to a crowded audience. His manner is pleaſant; and the matter of his lectures being both popular and ſcientific, cauſes him to be greatly applauded. Mr. Davy is the author of an elaborate paper on the principles of tanning, inſerted in the Philoſophical Tranſactions.

"The library and collection of books of reference are veſted in the corporation, to be and remain under the ſame direction and government as other parts of the inſtitution.

"The proprietors ſubſcribing to the library 100*l.* or upward, are hereditary patrons; and thoſe ſubſcribing 50*l.* or upward, are patrons for life. Each of the patrons has authority to introduce or recommend one ſcientific or literary perſon to the library.

"The library, which is 14 feet high, and 60 feet long, is fitted up with a gallery for the conveniency of reaching the books. The patrons have already furniſhed it with a great number of ſcarce and valuable hiſtorical, claſſical, and ſcientific works. By the death of Thomas Aſtle, eſq. F. R. and A. SS. keeper of the records in the Tower of London, an opportunity preſented itſelf of enriching the collection with his ineſtimable library, conſiſting of all the moſt valuable books relating to the topography, antiquities, parliamentary and numiſmatic hiſtory, and ſubjects that relate to the hiſtory of Great Britain, which the patrons purchaſed of his executors.

"The repoſitory which contains the models of various curious and uſeful machines and productions of the arts is extremely intereſting. This promiſes to become a highly valuable branch of the inſtitution, and the managers at preſent occupy themſelves with increaſing the collection by every means which the laws of the inſtitution permit them to employ.

"The funds of the inſtitution ariſe from the payments made by the proprietors and ſubſcribers, which laſt are divided into two claſſes, thoſe for life, and thoſe paying an annual ſum. The proprietors originally paid the ſum of ſeventy guineas, which has been annually increaſed in the ſum of ten guineas till it has reached one hundred, and the number of proprietors limited to four hundred. The whole of the property of the inſtitution is veſted ſolely in the proprietors, who each have right of perſonal admiſſion to the lectures, and

the reading room, and alſo one transferable ticket, annually renewed, which admits the bearer to the lectures and public experiments, and to the repoſitory, but not to the reading rooms.

"The life ſubſcribers pay the ſum of thirty guineas at their election, and receive a ticket which entitles them to perſonal admiſſion to the inſtitution in the ſame manner as the proprietors. The annual ſubſcribers have the ſame privileges as the others, on the payment of three guineas."

The following is a liſt of the copper plates in this elegant work. The cities of London and Weſtminſter; map of London; Greenwich Hoſpital, the Weſt India Docks, &c.; Greenwich Park; Court of King's Bench; the Mall in St. James's Park; Hyde Park; the Horſe Guards, or War-Office, and Parade of the Foot Guards; Weſtminſter from Lambeth; the Royal Proceſſion to Parliament; the Houſe of Lords; the Houſe of Commons; Interior of the Rotunda of the Bank of England; the Royal Exchange, Bank, &c.; the Royal Exchange; St. Paul's Cathedral, with the Lord Mayor's Show on the Water; St. Paul's Cathedral, the weſt front; Inſide of St. Paul's Cathedral, with the annual Aſſemblage of the Charity Children of the Metropolis; Weſtminſter Abbey; the Society of Arts; Inſide of Drury-lane Theatre; Inſide of Covent-garden Theatre; Vauxhall Gardens.——In addition to the above there are 31 prints of the Itinerant Traders, or the *Cries* of *London*, beautifully coloured.

CII. *The* LIFE *of* GEORGE WASHINGTON, *Commander in Chief of the American Forces during the War which eſtabliſhed the Independence of his Country, and Firſt Preſident of the United States. Compiled under the inſpection of the Hon.* BUSHROD WASHINGTON, *from original papers bequeathed to him by his deceaſed Relative. By* JOHN MARSHALL, *Chief Juſtice of the United States, &c.—Phillips.*

(*Continued from page* 333.)

THIS accurate and well written work of a moſt illuſtrious character was noticed on its firſt appearance. Growing more intereſting as it proceeds, we ſhall make three extracts from the beginning, middle, and cloſe of this *ſecond* volume. The birth and firſt entrance of Gen. Waſhington on life are thus detailed:

"George Waſhington, the third ſon of Auguſtine Waſhington, was born in Virginia, at Bridges Creek, in the county of Weſtmorland, on the 22d of February, 1732. He was the great grandſon of John Waſhington, a gentleman of very reſpectable family in the north of England, who had emigrated about the year 1657, and ſettled on the place where young Mr. Waſhington was born.

"Very early in life the caſt of his genius diſcloſed itſelf. The war in which his country was then engaged againſt France and Spain, firſt kindled thoſe latent ſparks which afterwards blazed with equal ſpendour and advantage; and at the age of fifteen he urged ſo preſſingly to be permitted to enter into the Britiſh navy, that the place of midſhipman was obtained for him. The interference of a timid and affectionate mother ſuſpended for a time the commencement of his military courſe.

"He loſt his father at the age of ten years, and received what was denominated an Engliſh education; a term which excludes the acquiſition of other languages than our own.—As his patrimonial eſtate was by no means conſiderable, his youth was employed in uſeful induſtry; and in the practice of his profeſſion, as a ſurveyor, he had an opportunity of acquiring that information reſpecting vacant lands, and of forming thoſe opinions concerning their future value, which afterwards greatly contributed to the increaſe of his private fortune.

"It is ſtrong evidence of the opinion entertained of his capacity, that when not more than nineteen years of age, and at a time when the militia were to be trained for actual ſervice, he was appointed one of the adjutants-general of Virginia, with the rank of major. The duties annexed to this office were performed by him for a very ſhort time. The plan formed by France for connecting her extenſive dominions in America, by uniting Canada to Louiſiana, now began to develope itſelf. Poſſeſſion was taken of a tract of country then deemed to be within the province of

Virginia, and a line of poſts was commenced from the Lakes to the Ohio. The attention of Mr. Dinwiddie, the lieutenant-governor of that province, was attracted by theſe ſuppoſed encroachments; and he deemed it his duty to demand, in the name of the king his maſter, that they ſhould deſiſt from the proſecution of deſigns which violated, as he thought, the treaties between the two crowns. A proper perſon was to be ſelected for the performance of this duty, which, at that time, was very properly believed to be a very arduous one. A great part of the country through which the envoy was to paſs was almoſt entirely unexplored, and inhabited only by Indians, many of whom were hoſtile to the Engliſh, and others of doubtful attachment. While the dangers and fatigues of the journey deterred thoſe from undertaking it who did not extend their views to the future ſcenes to be exhibited in that country, or who did not wiſh to be actors in them, they ſeem to have furniſhed motives to Mr. Waſhington for deſiring to be employed in this hazardous ſervice, and he engaged in it with the utmoſt alacrity.

"He commenced his journey from Williamſburg the day on which he was commiſſioned, and arrived on the 14th of November at Willis's Creek, then the extreme frontier ſettlement of the Engliſh. Guides were there engaged to conduct him over the Aleghany mountains, the paſſage of which, at that ſeaſon of the year, began to be extremely difficult.—After ſurmounting conſiderable impediments from the ſnow and high waters, he reached the mouth of Turtle Creek on the Monongahela, on the 22d, where he learned from an Indian trader, that the French general was dead, and that the major part of the army had retired into winter quarters. Purſuing his route, he examined the country with a military eye, and ſelected the forks of the Monongahela and Aleghany rivers, the place where Fort du Queſne, now Fort Pitt, was afterwards erected by the French, as an advantageous and commanding poſition, which it would be adviſeable to take poſſeſſion of immediately, and to fortify.

"After employing a few days among the Indians in that neighbourhood, and procuring ſome of their chiefs, whoſe fidelity he took the moſt judicious means for ſecuring, to accompany him, he aſcended the Aleghany river, and at the mouth of French Creek found the firſt fort occupied by the troops of France. Proceeding further up the creek to another fort, he was received by Monſ. le Gardeur de St. Pierre, the commanding officer on the Ohio, to whom he delivered the letter of Mr. Dinwiddie: and, having received an anſwer from him, returned with infinite fatigue, and much danger from the hoſtile Indians, to Williamſburg. The exertions made by Mr. Waſhington on this occaſion, the perſeverance with which he ſurmounted the difficulties of the journey, and the judgment diſplayed in his conduct towards the Indians, raiſed him very much in the public opinion, as well as in that of the lieutenant-governor. His journal, drawn up for the inſpection of Mr. Dinwiddie, was publiſhed, and generally conſidered as ſtrongly evincing the ſolidity of his judgment, and the fortitude of his mind. As the anſwer from the commandant of the French forces on the Ohio indicated no diſpoſition to withdraw from that country, it was deemed neceſſary to make ſome preparations to maintain the right aſſerted over it by the Britiſh crown: and the aſſembly of Virginia determined to authoriſe the governor, with the advice of council, to raiſe a regiment for that purpoſe, to conſiſt of three hundred men. The command of this regiment was given to a Mr. Frye, a gentleman ſuppoſed to be well acquainted with the weſtern country; and Major Waſhington was appointed lieutenant-colonel. Extremely ſolicitous to be engaged as early as poſſible in active ſervice, and to be uſefully employed, he obtained permiſſion, about the beginning of April, to march with two companies, in advance of the other troops, to the Great Meadows. By this meaſure he expected to protect the country to make himſelf more perfectly acquainted with it, as well as with the ſituations and deſigns of the enemy; and to preſerve the friendſhip of the ſavages. Immediately after his ar-

rival at that place, he was viſited by ſome friendly Indians, who informed him that the French had diſpoſſeſſed a party of workmen employed by the Ohio Company to erect a fort on the ſouth-eaſtern branch of the Ohio, and were themſelves then engaged in completing a fortification at the confluence of the Aleghany and Monongahela rivers; and that a detachment from that place was then on its march towards the Great Meadows. Open hoſtilities had not yet commenced, but the country was conſidered as invaded; and ſeveral circumſtances were related contributing to the opinion that this party was approaching with hoſtile views. Among others it was ſtated that they had left the path ſome diſtance, and had encamped for the night in a bottom, in a ſecret retired ſituation, as if to ſecure concealment. The Indians offering themſelves as guides, Col. Waſhington ſet out in a dark rainy night, in the courſe of which he ſurrounded and completely ſurpriſed the French encampment, which was but a few miles weſt of the Great Meadows. About day-break his troops fired and ruſhed upon the French, who immediately ſurrendered; one man only eſcaped; and M. Jumonville, the commanding officer of the party, was the only perſon killed. The reſidue of the regiment was now on its way to join the detachment advanced in their front. On the march Colonel Frye died at Paterſon's Creek, and the command devolved on Col. Waſhington. Their junction was effected at the Great Meadows; ſoon after which two independent companies of regulars arrived at the ſame place, the one from South Carolina, and the other from New York, making in the whole, for the Virginia regiment was not complete, ſomewhat leſs than four hundred effective men. The regular captains objected to being commanded by a provincial officer; but under exiſting circumſtances, the diſpute about rank was waved for the moment, and the command reſted with Colonel Waſhington. A ſmall ſtockade, afterwards called Fort Neceſſity, was erected at the Great Meadows, for the purpoſe of ſecuring the proviſions from horſes; after which the troops commenced their march towards Fort du Queſne, with the intention of diſlodging the French from that place. They had proceeded to the weſternmoſt foot of the Laurel Hill, about thirteen miles from Fort Neceſſity, when intelligence was received which terminated their march. They were there met by ſome friendly Indians, who informed them that the enemy was rapidly advancing as numerous as the pigeons in the woods. Among thoſe who brought this information was a very truſty chief, who had left the fort on the Ohio only two days before, where he had ſeen a conſiderable reinforcement arrive, and had heard the intention declared of marching immediately to attack the Engliſh, with a corps compoſed of eighteen hundred French and four hundred Indians. This intelligence was corroborated by the information already received from deſerters who had come in a few days before, and had aſſured them that a reinforcement was expected. The troops had been without bread for ſix days, and had but a very ſmall ſupply of meat. The enemy could approach within five miles of their poſition by water, and might either paſs them by a road leading through the country ſome diſtance from them, ſo as to cut off all ſupplies, and ſtarve them into a ſurrender, or fight them with a ſuperiority of three to one.

"In this hazardous ſituation a council of war was called, and the officers unanimouſly adviſed that they ſhould retire to the fort at the Great Meadows, where the two roads united, and the country would not eaſily admit the paſſage of an enemy without being perceived. At that place it was intended to remain till reinforcements of men and ſupplies of proviſions ſhould arrive.

"In purſuance of this advice, Colonel Waſhington retired to Fort Neceſſity, and began a ditch around the ſtockade. Before it was completed, the enemy, ſuppoſed to amount to fifteen hundred men, under the command of Monſ. de Villiers, appeared, and immediately commenced a furious attack upon the fort; where they were received with great intrepidity. The Americans fought partly within the ſtockade, and partly in the ſurrounding ditch, which was ready filled with mud and

water. Colonel Washington in person continued the whole day on the outside of the fort, encouraging the soldiers by his countenance and example. The enemy fought under cover of the trees and high grass with which the country abounded. The engagement was continued with great resolution from ten in the morning till dark, when Monsr. de Villiers demanded a parley, and offered terms of capitulation. The proposals first made were rejected; but in the course of the night articles were signed, by which the fort was surrendered, on condition that its garrison should be allowed the honours of war; should be permitted to retain their arms and baggage; and to march without molestation into the inhabited parts of Virginia. The capitulation being in French, a language not understood by Colonel Washington or any of his party, and drawn up in the night under circumstances not admitting delay, contains an expression which was at the time untruly translated by the interpreter, advantage of which has since been taken by the enemies of that gentleman, to imply an admission on his part, that the officer killed in the action preceding the attack on the fort was assassinated.

"An account of the transaction was published by M. de Villiers, which drew from Colonel Washington a letter addressed to a friend, completely disproving a calumny, which, though entirely discredited at the time, was revived at a subsequent period, when circumstances well understood at the date of the transaction might be supposed to be forgotten. The whole loss sustained by the Americans in this affair is not ascertained. From a return made on the 9th of July at Willis's Creek, it appears that the killed and wounded of the Virginia regiment amounted to fifty-eight; but the loss of the two independent companies is not stated. It was conjectured, that on the part of the enemy about two hundred were killed and wounded, and it is probable that this conjecture does not greatly err.

"Notwithstanding the stipulation, that the troops should be unmolested on their march, heavy complaints were made of their being plundered and maltreated by the Indians. The cause of their complaints was perhaps unavoidable; for it was always found extremely difficult to secure, on the part of these troublesome allies and formidable enemies, an observance of engagements.

"Great credit was given to Col. Washington by his countrymen for the courage displayed on this occasion; and the legislature were so satisfied with the conduct of the party, as to vote their thanks to him, and the officers under his command. They also gave three hundred pistoles to be distributed among the soldiers engaged in the action, as a reward for their bravery.

"The regiment returned to Winchester to be recruited; and the companies expected from North Carolina and Maryland having arrived, Governor Dinwiddie, without attending to the condition or number of the forces, ordered them, on the advice of council, immediately to march over the Aleghany mountains, either to dispossess the French of their fort, or to build one in some proper place in the country.

"The little army in Virginia, which was placed under the command of Colonel Innes, from North Carolina, did not, as now reinforced, exceed half the number of the enemy, and was unprovided with the means of moving, or with those supplies for a winter campaign which are so particularly necessary in the severe climate where they were about to act. With as little consideration, directions were given for the immediate completion of the regiment, without furnishing a single shilling with which to recruit a man. Although Virginia had long basked in the sunshine of peace, it seems difficult to account for such inconsiderate and ill-judged measures. Colonel Washington remonstrated strongly against these orders, but prepared as far as possible to execute them. The assembly, however, having risen in a few days, without making any provision whatever for the further prosecution of the war, this wild expedition was for the present relinquished.

"After the season for action was over, the Virginia regiment was reduced to independent companies; and in the course of the winter, orders

rival at that place, he was viſited by ſome friendly Indians, who informed him that the French had diſpoſſeſſed a party of workmen employed by the Ohio Company to erect a fort on the ſouth-eaſtern branch of the Ohio, and were themſelves then engaged in completing a fortification at the confluence of the Aleghany and Monongahela rivers; and that a detachment from that place was then on its march towards the Great Meadows. Open hoſtilities had not yet commenced, but the country was conſidered as invaded; and ſeveral circumſtances were related contributing to the opinion that this party was approaching with hoſtile views. Among others it was ſtated that they had left the path ſome diſtance, and had encamped for the night in a bottom, in a ſecret retired ſituation, as if to ſecure concealment. The Indians offering themſelves as guides, Col. Waſhington ſet out in a dark rainy night, in the courſe of which he ſurrounded and completely ſurpriſed the French encampment, which was but a few miles weſt of the Great Meadows. About day-break his troops fired and ruſhed upon the French, who immediately ſurrendered; one man only eſcaped; and M. Jumonville, the commanding officer of the party, was the only perſon killed. The reſidue of the regiment was now on its way to join the detachment advanced in their front. On the march Colonel Frye died at Paterſon's Creek, and the command devolved on Col. Waſhington. Their junction was effected at the Great Meadows; ſoon after which two independent companies of regulars arrived at the ſame place, the one from South Carolina, and the other from New York, making in the whole, for the Virginia regiment was not complete, ſomewhat leſs than four hundred effective men. The regular captains objected to being commanded by a provincial officer; but under exiſting circumſtances, the diſpute about rank was waved for the moment, and the command reſted with Colonel Waſhington. A ſmall ſtockade, afterwards called Fort Neceſſity, was erected at the Great Meadows, for the purpoſe of ſecuring the proviſions from horſes; after which the troops commenced their march towards Fort du Queſne, with the intention of diſlodging the French from that place. They had proceeded to the weſternmoſt foot of the Laurel Hill, about thirteen miles from Fort Neceſſity, when intelligence was received which terminated their march. They were there met by ſome friendly Indians, who informed them that the enemy was rapidly advancing as numerous as the pigeons in the woods. Among thoſe who brought this information was a very truſty chief, who had left the fort on the Ohio only two days before, where he had ſeen a conſiderable reinforcement arrive, and had heard the intention declared of marching immediately to attack the Engliſh, with a corps compoſed of eighteen hundred French and four hundred Indians. This intelligence was corroborated by the information already received from deſerters who had come in a few days before, and had aſſured them that a reinforcement was expected. The troops had been without bread for ſix days, and had but a very ſmall ſupply of meat. The enemy could approach within five miles of their poſition by water, and might either paſs them by a road leading through the country ſome diſtance from them, ſo as to cut off all ſupplies, and ſtarve them into a ſurrender, or fight them with a ſuperiority of three to one.

"In this hazardous ſituation a council of war was called, and the officers unanimouſly adviſed that they ſhould retire to the fort at the Great Meadows, where the two roads united, and the country would not eaſily admit the paſſage of an enemy without being perceived. At that place it was intended to remain till reinforcements of men and ſupplies of proviſions ſhould arrive.

"In purſuance of this advice, Colonel Waſhington retired to Fort Neceſſity, and began a ditch around the ſtockade. Before it was completed, the enemy, ſuppoſed to amount to fifteen hundred men, under the command of Monſ. de Villiers, appeared, and immediately commenced a furious attack upon the fort; where they were received with great intrepidity. The Americans fought partly within the ſtockade, and partly in the ſurrounding ditch, which was ready filled with mud and

water. Colonel Waſhington in perſon continued the whole day on the outſide of the fort, encouraging the ſoldiers by his countenance and example. The enemy fought under cover of the trees and high graſs with which the country abounded. The engagement was continued with great reſolution from ten in the morning till dark, when Monſ. de Villiers demanded a parley, and offered terms of capitulation. The propoſals firſt made were rejected; but in the courſe of the night articles were ſigned, by which the fort was ſurrendered, on condition that its garriſon ſhould be allowed the honours of war; ſhould be permitted to retain their arms and baggage; and to march without moleſtation into the inhabited parts of Virginia. The capitulation being in French, a language not underſtood by Colonel Waſhington or any of his party, and drawn up in the night under circumſtances not admitting delay, contains an expreſſion which was at the time untruly tranſlated by the interpreter, advantage of which has ſince been taken by the enemies of that gentleman, to imply an admiſſion on his part, that the officer killed in the action preceding the attack on the fort was aſſaſſinated.

"An account of the tranſaction was publiſhed by M. de Villiers, which drew from Colonel Waſhington a letter addreſſed to a friend, completely diſproving a calumny, which, though entirely diſcredited at the time, was revived at a ſubſequent period, when circumſtances well underſtood at the date of the tranſaction might be ſuppoſed to be forgotten. The whole loſs ſuſtained by the Americans in this affair is not aſcertained. From a return made on the 9th of July at Willis's Creek, it appears that the killed and wounded of the Virginia regiment amounted to fifty-eight; but the loſs of the two independent companies is not ſtated. It was conjectured, that on the part of the enemy about two hundred were killed and wounded, and it is probable that this conjecture does not greatly err.

"Notwithſtanding the ſtipulation, that the troops ſhould be unmoleſted on their march, heavy complaints were made of their being plundered and maltreated by the Indians. The cauſe of their complaints was perhaps unavoidable; for it was always found extremely difficult to ſecure, on the part of theſe troubleſome allies and formidable enemies, an obſervance of engagements.

"Great credit was given to Col. Waſhington by his countrymen for the courage diſplayed on this occaſion; and the legiſlature were ſo ſatisfied with the conduct of the party, as to vote their thanks to him, and the officers under his command. They alſo gave three hundred piſtoles to be diſtributed among the ſoldiers engaged in the action, as a reward for their bravery.

"The regiment returned to Winchester to be recruited; and the companies expected from North Carolina and Maryland having arrived, Governor Dinwiddie, without attending to the condition or number of the forces, ordered them, on the advice of council, immediately to march over the Aleghany mountains, either to diſpoſeſs the French of their fort, or to build one in ſome proper place in the country.

"The little army in Virginia, which was placed under the command of Colonel Innes, from North Carolina, did not, as now reinforced, exceed half the number of the enemy, and was unprovided with the means of moving, or with thoſe ſupplies for a winter campaign which are ſo particularly neceſſary in the ſevere climate where they were about to act. With as little conſideration, directions were given for the immediate completion of the regiment, without furniſhing a ſingle ſhilling with which to recruit a man. Although Virginia had long baſked in the ſunſhine of peace, it ſeems difficult to account for ſuch inconſiderate and ill-judged meaſures. Colonel Waſhington remonſtrated ſtrongly againſt theſe orders, but prepared as far as poſſible to execute them. The aſſembly, however, having riſen in a few days, without making any proviſion whatever for the further proſecution of the war, this wild expedition was for the preſent relinquiſhed.

"After the ſeaſon for action was over, the Virginia regiment was reduced to independent companies; and in the courſe of the winter, orders

were received for ſettling the rank of the officers of his majeſty's forces, when joined or ſerving with the provincial forces in North America; which directed, that all officers commiſſioned by the king, or by his general commanding in chief in North America, ſhould take rank of all officers commiſſioned by the governors of the reſpective provinces. And further, that the general and field officers of the provincial troops ſhould have no rank when ſerving with the general and field officers commiſſioned by the crown: but that all captains and other inferior officers of the royal troops ſhould take rank over provincial officers of the ſame degree having ſenior commiſſions.

"Though his original attachment to a military life had been rather increaſed by the applauſes beſtowed on his firſt eſſay in arms, Colonel Waſhington poſſeſſed too entirely the proud and punctilious feelings of a ſoldier to ſubmit to a degradation ſo humiliating as this. Profeſſing his unabated inclination to continue in the ſervice, he retired indignantly from it, and anſwered the various letters which he received, preſſing him ſtill to hold his commiſſion, with aſſurances, that he ſhould ſerve with pleaſure, when he ſhould be enabled to do ſo without diſhonour.

"His eldeſt brother, Mr. Lawrence Waſhington, who had been engaged in the expedition againſt Carthagena, had lately died, and left him a conſiderable eſtate on the Potomack, which, in compliment to the admiral who commanded the fleet engaged in that enterpriſe, by whom he had been particularly noticed, he had called *Mount Vernon*.

"To this delightful ſpot Colonel Waſhington now withdrew, reſolving to devote all his future attention to the avocations of private life."

The taking the *command of the American armies* is thus mentioned:

"From the period of his marriage, the attentions of Colonel Waſhington, who had retired to Mount Vernon, were for ſeveral years principally directed to the management of his eſtate, which had now become conſiderable, and which he greatly improved. He continued, however, a moſt reſpected member of the legiſlature of his country, in which he took an early and a decided part in the oppoſition made to the principle of taxation aſſerted by the Britiſh parliament. He was choſen by the independent companies formed through the northern parts of Virginia, to command them; and was elected a member of the firſt Congreſs that met at Philadelphia, in which body he was very ſoon diſtinguiſhed as the ſoldier of America. He was placed on all thoſe committees whoſe duty it was to make arrangements for defence; and when it became neceſſary to appoint a commander in chief, his military character, the ſolidity of his judgment, the ſteady firmneſs of his temper, the dignity of his perſon and deportment, the confidence inſpired by his patriotiſm and integrity, and the independence of his circumſtances, combined with that policy which actuated New England, and induced a wiſh to engage the ſouthern colonies cordially in a war, to deſignate him in the opinion of all as the perſon to whom the deſtinies of his country ſhould be confided.

"He was unanimouſly choſen 'general and commander in chief of the army of the United Colonies, and all the forces now raiſed or to be raiſed by them.'

"When, the next day, the preſident communicated this appointment to him, he modeſtly anſwered, that though truly ſenſible of the high honour done him, yet he felt great diſtreſs, from a conſciouſneſs that his abilities and military experience might not be equal to the extenſive and important truſt. However, as the Congreſs deſired it, he would enter upon the momentous duty, and exert every power he poſſeſſed in their ſervice, and for ſupport of the glorious cauſe. He begged them to accept his cordial thanks for this diſtinguiſhed teſtimony of their approbation, and then added, 'but leſt ſome unlucky event ſhould happen unfavourable to my reputation, I beg it may be remembered by every gentleman in the room, that I this day declare, with the utmoſt ſincerity, I do not think myſelf equal to the command I am honoured with.'

"He declined all compenſation for his ſervices, and avowed an intention to keep an exact account of his

expences, which he ſhould rely on Congreſs to diſcharge.

"A ſpecial commiſſion was made out for him, and a ſolemn reſolution was unanimouſly entered into, declaring, that Congreſs would maintain, aſſiſt, and adhere to him as the general and commander in chief of the forces raiſed or to be raiſed, for the maintenance and preſervation of American liberty, with their lives and fortunes.

"He prepared, without delay, to enter upon the arduous duties of his ſtation; and having paſſed a few days in New York, where Gen. Schuyler commanded, and where ſeveral very important arrangements were to be made, he proceeded with the utmoſt diſpatch to Cambridge, which was the head quarters of the American army.

"As all orders of men concurred in approving his appointment, all concurred in expreſſing the ſatisfaction that event had given them, and their determination to afford him the moſt entire ſupport; yet the addreſs from the Provincial Congreſs of New York ſeemed to diſcloſe ſome jealouſy, even at that time, entertained of the danger to which liberty was expoſed from a military force; and the very expreſſion of their confidence, that he would return, when peace ſhould be reſtored, to the walks of private life, betrayed their fears, that ſo much power once acquired might not readily be parted with.

"Maſſachuſetts manifeſted more than uſual ſolicitude to demonſtrate the reſpect entertained for their general. A committee of the Congreſs of that province waited to receive him at Springfield, on the confines of the colony, about one hundred miles from Boſton, and to eſcort him to the army. Immediately after his arrival, an addreſs was preſented to him from the repreſentatives, breathing for him the moſt cordial affection, and teſtifying for him the moſt exalted reſpect. His anſwer was well calculated to keep up the favourable impreſſions which had been made, the preſervation of which was ſo eſſential to the ſucceſs of that very arduous conteſt into which the United Colonies had now entered.'

We cloſe with *the buſineſs of Trenton*, which was General Waſhington's principal ſucceſs throughout the war.

"The utmoſt exertions were made by the civil authority to raiſe the militia. Expreſſes were ſent through the different counties of Pennſylvania, and to the governments of Delaware and Maryland, urging them to march without delay to join the army. General Miflin was directed 'to repair immediately to the neighbouring counties, and endeavour, by all the means in his power, to rouſe and bring in the militia to the defence of Philadelphia.' Congreſs alſo declared, 'that they deemed it of great importance to the general ſafety, that General Meflin ſhould make a progreſs through the ſeveral counties of the ſtate of Pennſylvania, to rouſe the freemen thereof to the immediate defence of the city and country;' and they reſolved, 'that the aſſembly be requeſted to appoint a committee of their body to make the tour with him, and aſſiſt in this good and neceſſary work.'

"In the hope that the militia might be prevailed on to furniſh more effectual aid, ſo as to enable him even to act offenſively, if they ſaw a large regular army to which they might attach themſelves, the commander in chief had directed Gen. Gates to march with the regulars from the northern army: and, in the confidence that, if any movements ſhould be made by the enemy againſt the Highlands, the New England militia might be depended on to ſupply the places of the troops now ſtationed at thoſe poſts, General Heath was alſo ordered from Peckskill.

"Although General Lee had been repeatedly urged, in the moſt preſſing manner, to join the commander in chief, he proceeded ſlowly in the execution of theſe orders, manifeſting a ſtrong diſpoſition to retain his ſeparate command, and rather to hang on and threaten the rear of the enemy, than ſtrengthen the army in their front. With this view, he propoſed eſtabliſhing himſelf at Morris-town; but, on receiving a letter from General Waſhington, ſtating his diſapprobation of this plan, which though proper in itſelf, under other circumſtances, was now totally inadmiſſible, as the army, without this reinforce-

ment, was not ſtrong enough to ſtop the march of the enemy to Philadelphia, and preſſing him to come on, he ſtill declared an opinion in favour of his own propoſition, and proceeded reluctantly towards the Delaware. While on this march through Morris county, and at the diſtance of about twenty miles from the enemy, he very indiſcreetly quartered, under a ſlight guard, in a houſe about three miles from his army. Information of this circumſtance was given by a countryman to Colonel Harcourt, at that time detached with a body of cavalry, for the purpoſe of gaining intelligence concerning his movements, who immediately formed and executed the deſign of ſeizing him. By a rapid march, this corps of cavalry, very early in the morning, reached the houſe where the general had lodged, who received no intimation of its approach till the houſe was ſurrounded, and he found himſelf a priſoner to Colonel Harcourt, who bore him off in triumph to the Britiſh army, where he was for ſome time treated, not as a priſoner of war, but as a deſerter from the Britiſh ſervice.

"This misfortune made a very ſerious impreſſion on all America: The confidence originally placed in General Lee, created by his experience and real talents, had been very greatly increaſed by the ſucceſs which had attended him while commanding in the ſouthern department. In addition to this, it was generally believed that his opinions, during the military operations in New York, had contributed to the adoption of thoſe judicious movements which had, in a great meaſure, defeated the plans of the enemy in that quarter. It was alſo believed, but without any certain knowledge of the fact, that he had oppoſed the majority, in the council of war, which determined to maintain the forts Waſhington and Lee. No officer, except the commander in chief, poſſeſſed at that time ſo large a portion of the confidence either of the army or of the country; and this loſs was almoſt univerſally bewailed as the greateſt calamity which had befallen the American arms. It was regretted by no perſon more than by General Waſhington himſelf, who highly eſteemed his merit as a ſoldier, and ſincerely lamented his captivity, both on account of his perſonal feelings, and of the public intereſt.

"General Sullivan, on whom the command of that diviſion of the army devolved, after the capture of Lee, promptly obeyed the orders which had been directed to that officer, and, croſſing the Delaware at Philipſburg, joined the commander in chief about the twentieth, whoſe effective force was now increaſed to nearly ſeven thouſand men. He was alſo joined on the ſame day by General Gates, with a part of the northern army.

"All attempts of the Britiſh General to get poſſeſſion of boats, for the purpoſe of tranſporting his army over the Delaware, having failed, he appeared to have determined to cloſe the campaign, and to retire into winter quarters. About four thouſand men were cantoned on the Delaware, at Trenton, Bordentown, the White Horſe, and Burlington; and the remaining part of the army of Jerſey was diſtributed from that river to the Hackenſac. Strong corps were poſted at Princeton, Brunſwick, and Elizabeth Town; but Gen. Waſhington apprehended that the intention of taking Philadelphia, in the courſe of the winter, was only poſtponed till the ice ſhould become ſufficiently firm to bear the army.

"To intimidate as much as poſſible, and thereby impede the recruiting buſineſs, was believed to have been no inconſiderable inducement with General Howe for covering with his army ſo large a portion of Jerſey. To counteract his views in this reſpect, was an object of real importance. For that purpoſe Gen. Waſhington ordered three regiments, who were marched from Peekſkill, to halt at Morris-town, and to unite with about eight hundred Jerſey militia, who had collected under Colonel Ford, at the ſame place.—General Maxwell was detached to take the command of theſe troops, with orders to watch the motions of the enemy, and to endeavour to haraſs them in their marches; to give intelligence of all their movements, and eſpecially of ſuch as might be made from Brunſwick towards Princeton or Trenton; to keep up the ſpirits of the militia, and as much as poſ-

ſible prevent the inhabitants from going within the Britiſh lines, making their ſubmiſſion, and taking protections.

"The ſhort interval between the enemy's going into winter quarters and the re-commencement of active operations, was employed by General Waſhington in repeating the repreſentations he had ſo often made to Congreſs, reſpecting the army for the enſuing campaign. The extreme dangers reſulting from ſhort enliſtments, and of relying on militia, had now been fully exemplified; and his remonſtrances on that ſubject were ſupported by that ſevere experience which improves while it chaſtiſes. He had ſenſibly felt, in the courſe of the campaign, his want of cavalry, of artillery, and of engineers; he had before ſtated to Congreſs his ideas on theſe important ſubjects, and he now re-urged them to that body. He was likewiſe earneſt with them to increaſe the number of continental regiments. It was admitted, that thoſe already voted would moſt probably not be completed; but he contended, that by directing an additional number, and appointing other officers, more men would be enliſted, as every officer would recruit a few. With reſpect to the additional expenſe to be incurred by the meaſures he recommended, it was obſerved, 'that our funds were not the only object now to be taken into conſideration. The enemy, it was found, were daily gathering ſtrength from the diſaffected. This ſtrength, like a ſnow-ball, would increaſe by rolling, unleſs ſome means could be deviſed to check effectually the progreſs of their arms. Militia might poſſibly do it for a ſhort time; but in a ſhort time alſo the militia of thoſe ſtates which were frequently called upon, would not turn out at all, or would turn out with ſo much reluctance and ſloth, as to amount to the ſame thing. Inſtance New Jerſey! Witneſs Pennſylvania! Could any thing but the river Delaware have ſaved Philadelphia?'

"'Could any thing,' he aſked, 'be more deſtructive to the recruiting buſineſs, than giving ten dollars bounty for ſix weeks' ſervive in the militia, who come in you cannot tell how, go you cannot tell when, and act you cannot tell where; who conſume your proviſions, exhauſt your ſtores, and leave you at laſt in a critical moment?'

"'Theſe, ſir,' he added, 'are the men I am to depend upon ten days hence. This is the baſis upon which your cauſe will reſt, and muſt for ever depend, till you obtain a large ſtanding army, ſufficient of itſelf to oppoſe the enemy.'

"He alſo hinted the idea, extremely delicate in itſelf, of enlarging his powers, ſo as to enable him to act without conſtant applications to Congreſs for their ſanction of meaſures, the immediate adoption of which was eſſential to the public intereſts. 'This might,' he ſaid, 'be termed an application for powers too dangerous to be intruſted. He could only anſwer, that deſperate diſeaſes required deſperate remedies. He could with truth declare, that he felt no luſt of power, but wiſhed, with as much fervency as any man upon this wide extended continent, for an opportunity of turning the ſword into a ploughſhare: but his feelings as an officer and as a man had been ſuch, as to force him to ſay, that no perſon ever had a greater choice of difficulties to contend with than himſelf.'

"After ſtating ſeveral meaſures he had adopted, not within the powers conferred on him by Congreſs, and urging many other neceſſary arrangements, he added, 'It may be thought I am going a good deal out of the line of my duty to adopt theſe meaſures, or adviſe thus freely: a character to loſe, an eſtate to forfeit, the ineſtimable bleſſings of liberty at ſtake, and a life devoted, muſt be my excuſe.'

"The preſent aſpect of their affairs was extremely unfavourable to the United States. The exiſting army, except a few regiments from Virginia, Pennſylvania, Maryland, and New York, affording an effective force of about fifteen hundred men, was to be diſſolved in a very few days. New Jerſey had, in a great meaſure, ſubmitted to the enemy. The militia of Pennſylvania had not turned out with the alacrity expected from them. General Howe would, moſt probably, avail himſelf of the ice, which was now to be expected,

and of the diſſolution of the American army, to paſs the Delaware and ſeize Philadelphia. This event was greatly dreaded, not only on account of its intrinſic importance at any time, but its peculiar importance at this juncture, when that army was to be recruited on which the future hopes of America were to reſt, and which was to decide her deſtiny. It was greatly feared, and with much reaſon, that this event would make ſo unfavourable an impreſſion on the public mind, as to deter the American youth from engaging in a conteſt becoming ſo deſperate.

"Impelled by theſe conſiderations, and by that enterpriſing diſpoſition which he poſſeſſed in a very great degree, General Waſhington no ſooner perceived the diſperſed ſituation of the enemy, than he meditated a blow which might retrieve the affairs of America in the public opinion, and recover the ground which had been loſt.

"He formed the daring plan of attacking at the ſame inſtant, all the Britiſh poſts on the Delaware. If ſucceſsful in all or any of theſe attacks, he hoped to wipe off the ill impreſſions made by his loſſes and by his retreat, and to compel the enemy to compreſs himſelf in ſuch a manner as no longer to cover the Jerſeys, while he ſhould, at the ſame time, relieve Philadelphia from the immediate and imminent danger with which it was now threatened.

"The poſition he had taken, to oppoſe the paſſage of the river by the enemy, was preciſely calculated to favour his preſent ſcheme of offenſive operations.

"Moſt of his regulars were poſted above Trenton, from Yardley's up to Coryell's Ferry. General Irvine, with the Pennſylvania flying camp and Jerſey militia, extended from Yardley's to the ferry oppoſite Bordentown; and General Cadwallader, with the Pennſylvania militia, lay ſtill lower down the river.

"The plan now formed was to croſs in the night at M'Konkey's Ferry, about nine miles above Trenton, to march down in two diviſions, the one taking the river road, and the other the Pennington Road, both of which lead into the town; the one at the upper or weſt end, and the other at its back, and towards the north. This part of the plan was to be executed by the General in perſon, at the head of about two thouſand four hundred continental troops. It was ſuppoſed very practicable to paſs them over the river by twelve o'clock, ſo that ſufficient time would be allowed to reach their point of deſtination by five in the morning of the next day, when the attack was to be made. General Irvine was directed to croſs at the Trenton Ferry, and ſecure the bridge below the town, ſo as to prevent the eſcape of any part of the enemy by that road. General Cadwallader was to croſs over at Briſtol, and carry the poſt at Burlington. It had been in contemplation to unite the troops employed in fortifying Philadelphia, to thoſe at Briſtol, and to place the whole under General Putnam; but there were ſuch indications in that city of an inſurrection to favour the royal cauſe, that it was deemed unſafe to withdraw them. The cold on the night of the twenty-fifth was very ſevere: a mingled ſnow, hail, and rain, fell in great quantities, and ſo much ice was formed in the river, that, with the utmoſt poſſible exertions, the troops, with the artillery, could not be got over till three o'clock, and it was near four before the line of march could be taken up. As the diſtance to Trenton, both by the River and Pennington Roads, is nearly the ſame, it was ſuppoſed that each diviſion of the army would reach its object about the ſame time, and therefore orders were given to attack at the firſt moment of arrival; and, after driving in the out-guards, to preſs rapidly after them into the town, ſo as to prevent the main body of the enemy from forming.

"General Waſhington himſelf accompanied the upper diviſion, and arrived at the out-poſt on that road preciſely at eight o'clock. He immediately drove it in, and in three minutes heard the fire from the diviſion which had taken the River Road. The picquet guard kept up a fire from behind houſes as they retreated; but the Americans followed them with ſuch ardour and rapidity, that they could make no ſtand. Colonel Rawle, a very gallant offi-

cer, who commanded in Trenton, paraded his men, in order to meet the aſſailants. In the very commencement of the action he was mortally wounded; and his troops, in apparent confuſion, attempted to file off from the right, and gain the road to Princeton. Perceiving this, General Waſhington threw a detachment in their front, which intercepted them in the attempt, and advanced rapidly on them. Finding themſelves ſurrounded, and their artillery already ſeized, they laid down their arms, and ſurrendered priſoners of war.

"Unfortunately, the quantity of ice had rendered it impracticable for General Irvine to execute that part of the plan which had been allotted to him. With his utmoſt efforts he could not croſs the river. In conſequence of this circumſtance, the lower road towards Bordentown remained open. A part of the enemy, about five hundred men, ſtationed in the lower end of Trenton, availed themſelves of this circumſtance, and, croſſing the bridge in the commencement of the action, marched down the river to Bordentown. The ſame cauſe prevented General Cadwallader from attacking the poſt at Burlington. With infinite difficulty he got over a part of his infantry; but finding it abſolutely impracticable to croſs with the artillery, his infantry returned.

"Though this plan failed in ſo many of its parts, in conſequence of the extreme ſeverity of the night, the ſucceſs which attended that part of it executed by General Waſhington in perſon, was complete, and was followed by the happieſt effects. About twenty of the enemy were killed, and nine hundred and nine, including officers, laid down their arms, and ſurrendered themſelves priſoners. Others were afterwards found concealed in houſes, ſo as to increaſe the number to about one thouſand. Six field-pieces, and a thouſand ſtand of ſmall arms, were alſo taken. On the part of the Americans, two privates were killed, two frozen to death, and one officer and three or four privates wounded.

"Had it been practicable for the diviſions under Generals Irvine and Cadwallader to have croſſed the river, it was intended to have proceeded from Trenton to the poſts below, at and about Bordentown; to have entirely ſwept the enemy from the banks of the Delaware, and to have maintained a poſition in the Jerſeys: But finding thoſe parts of the plan to have entirely failed, and ſuppoſing the enemy to remain in force below, while a ſtrong corps was poſted at Princeton, it was thought unadviſable to hazard the loſs of the very important advantage already gained, by attempting to increaſe it; and General Waſhington re-croſſed the river, with his priſoners and the military ſtores he had taken. Lieutenant Colonel Baylor, his aid-de-camp, who carried the intelligence of this ſucceſs to Congreſs, was preſented with a horſe, completely capariſoned for ſervice, and recommended to be appointed to the command of a regiment of cavalry.

"Nothing could ſurpaſs the aſtoniſhment of the enemy at this unexpected diſplay of vigour on the part of the American General. His condition, and that of his country, had been thought deſperate. He had been deſerted by all the troops having a legal right to leave him. The regiments ordered from Ticonderoga had melted away, on returning to the neighbourhood of the country in which they had been raiſed; and of his remaining regulars, nearly two-thirds would be entitled to their diſcharge on the firſt day of January. There appeared no probability of prevailing on them to continue longer in the ſervice, and the recruiting buſineſs was abſolutely at an end. The ſpirits of a large proportion of the people were ſunk to the loweſt point of depreſſion. New Jerſey appeared to be completely ſubdued, and ſome of the beſt judges of the public ſentiment were of opinion, that immenſe numbers in Penſylvania alſo were determined not to permit the ſixty days, allowed in the proclamation of Lord and Sir William Howe, to elapſe, without availing themſelves of the pardon it held forth to them. Inſtead of offenſive operations, the total diſperſion of the ſmall remnant of the American army might well be looked for, ſince it would be rendered too feeble, by the diſcharge of thoſe engaged only till

the laſt day of December, to attempt any longer a defence of the Delaware; which would, by that time, in all probability be every where paſſable on the ice. While every appearance ſupported theſe opinions, and the Britiſh General, without being ſanguine, might well have conſidered the war as approaching its termination, this bold and fortunate enterpriſe announced to him, that he had to contend with an adverſary who could never ceaſe to be formidable, ſo long as the poſſibility of reſiſtance remained. Finding the conqueſt of America further removed than had been ſuppoſed, he determined, though in the depth of winter, to recommence active operations; and Lord Cornwallis, who had retired to New York, for the purpoſe of embarking for Europe, ſuſpended his departure, and returned to the Jerſeys in great force, for the purpoſe of regaining the ground that had been loſt.

"Meanwhile, Count Donop, who commanded the troops now poſted below Trenton, and was himſelf at Burlington, on hearing the diſaſter which had befallen Colonel Rawle, immediately commenced his retreat by the road leading to Amboy, and joined General Leſlie at Princeton. The next day General Cadwallader croſſed over and took poſt on the Jerſey ſhore. He was ordered to haraſs the enemy if he could do ſo ſafely, but to put nothing to the hazard till he ſhould be joined by the continental battalions, who were allowed a day or two of repoſe, after the fatigues of the enterpriſe againſt Trenton. General Miflin now joined General Irvine with a detachment of Pennſylvania militia, amounting to about fifteen hundred men; and thoſe troops were alſo ordered to croſs the Delaware.

"The General once more finding himſelf at the head of a force with which it was practicable to attempt ſomething, reſolved not to remain inactive. Inferior as he was to the enemy, he yet determined to employ the winter in endeavouring to recover the whole, or a great part of Jerſey.

"With this view he ordered General Heath, who was ſtationed at Peckſkill for the defence of the Highlands, on the North River, to leave a ſmall detachment of troops at that place, and with the main body of New England militia to move into Jerſey, and approach the cantonments of the enemy on that ſide. General Maxwell was ordered to collect as many militia as poſſible, to haraſs their flank and rear, and to attack their out-poſts, when any favourable occaſion ſhould preſent itſelf. Having made theſe diſpoſitions, he again croſſed the Delaware himſelf, with his continental regiments, and once more took poſt at Trenton. Here he exerted all his influence to prevail on the troops from New England, whoſe terms of ſervice expired on the laſt day of December, to continue during the preſent exigency; and with infinite difficulty, added to a bounty of ten dollars, many of them were induced to re-engage for ſix weeks.

"The enemy were now collected in force at Princeton, under Lord Cornwallis, where ſome works were thrown up; and, from their advancing a ſtrong corps towards Trenton, as well as from their knowledge that the continental troops from New England were now entitled to be diſcharged, and from ſome private intelligence, it was expected they would attack that place.

"Generals Miflin and Cadwallader, who lay at Bordentown and Croſwix, with three thouſand ſix hundred militia, were ordered to march up in tha night of the firſt of January, to join the Commander in Chief, whoſe whole effective force with this addition did not exceed five thouſand men.

"As had been expected, the enemy advanced upon them the next morning, and, after ſome ſlight ſkirmiſhing, with troops detached to Maidenhead to haraſs and delay their march, the van of their army reached Trenton about four o'clock in the afternoon; while their rear was at Maidenhead, about half way between Princeton and Trenton. On their approach General Waſhington retired acroſs the Aſſumpinck, a creek which runs through the town, behind which he drew up his army. The enemy attempted to croſs this creek at ſeveral places; but finding all the fords guarded, they halted, and kindled their fires. The Ame-

rican troops kindled their fires likewiſe, and a cannonade, which had commenced on their firſt appearance, was kept up on both ſides till dark.

"The ſituation of Gen. Waſhington was now again extremely critical. If he maintained his preſent poſition, it was certain that he ſhould be attacked, next morning, by a force in all reſpects ſuperior to his own; and the reſult would moſt probably be, the deſtruction of his little army. If he ſhould retreat over the Delaware, the paſſage of that river was now ſo difficult, being filled with ice, which, in conſequence of a few mild and foggy days, was not firm enough to march upon, that a conſiderable loſs, perhaps a total defeat, would be ſuſtained; and, in any event, the Jerſeys would once more be entirely in poſſeſſion of the enemy; the public mind would again be depreſſed, and recruiting diſcouraged by his apparent inferiority; and Philadelphia would once more be in the graſp of General Howe. It was obvious that the one event or the other would deduct very greatly from the advantages promiſed from his late ſucceſs; and, if it did not render the American cauſe abſolutely deſperate, would very eſſentially injure it.

"In this ſtate of things, he formed the bold and judicious deſign of abandoning the Delaware, and marching ſilently in the night, by a circuitous route, along the left flank of the enemy, into their rear at Princeton, where he knew they could not be very ſtrong. After beating them there, it was his intention to make a rapid movement to Brunſwick, where their baggage and principal magazines lay under a weak guard. He had ſanguine expectations that this manœuvre would call the attention of the Britiſh general to his own defence, in which event very great objects would be accompliſhed; Philadelphia would be ſaved for the preſent; great part of Jerſey recovered; and not only the appearance of a retreat avoided, but the public mind encouraged by active and offenſive operations. If he ſhould even be diſappointed in this expectation, and, contrary to every calculation, Lord Cornwallis ſhould proceed to Philadelphia, nothing worſe could happen, in that quarter, than muſt happen ſhould the American army be driven before him; and, in the mean time, he would leſſen that calamity, by expelling the enemy completely from Jerſey, and cutting up all their parties in that ſtate by detail.

"The council of war approved the plan, and preparations were immediately made for its execution. The baggage, as ſoon as it was dark, was removed ſilently to Burlington; and about one o'clock, after renewing their fires, and leaving their guards at the bridge and other paſſes over the creek which runs through Trenton, to go the rounds as uſual, they decamped with perfect ſecreſy, and took a circuitous route through Allen's Town to Princeton. At the latter place, three Britiſh regiments had encamped the preceding night, two of which commenced their march early in the morning, to join the rear of their army at Maidenhead. About ſun-riſe they fell in with the van of the Americans, conducted by general Mercer, and a very ſharp action enſued, which, however, was not of long duration. The militia, of which the advanced party was principally compoſed, ſoon gave way, and the few regulars attached to them were not ſtrong enough to maintain their ground. General Mercer was mortally wounded, while gallantly exerting himſelf to rally his broken troops, and the van was entirely routed. But the fortune of the day was ſoon changed. The main body of the army, led by General Waſhington in perſon, followed cloſe in the rear, and attacked the enemy with great ſpirit. Perſuaded that defeat would irretrievably ruin the affairs of America, he advanced in the very front of danger, and expoſed himſelf to the hotteſt fire of the enemy. He was alſo well ſupported by the ſame troops who had, a few days before, ſaved their country at Trenton; ſo that the Britiſh, in turn, were compelled to give way. Their line was broken, and the two regiments ſeparated from each other. Colonel Mawhood, who commanded that in front, forced his way through a part of the American troops, and reached Maidenhead. The fifty-fifth regiment, which was in the rear, re-

treated, by the way of Hillſborough, to Brunſwick. The vicinity of the Britiſh forces at Maidenhead ſecured Colonel Mawhood from being purſued, and General Waſhington preſſed forward to Princeton. The regiment remaining in that place ſaved itſelf, without having ſuſtained much loſs, by a precipitate retreat to Brunſwick.

"In this action upwards of one hundred of the enemy were killed on the ſpot, and nearly three hundred were taken priſoners. The loſs of the Americans, in killed, was ſomewhat leſs; but in this number was included General Mercer, a very valuable officer, from Virginia, who had ſerved with the commander in chief in the war againſt the French and Indians, which terminated in 1763, and was greatly eſteemed by him. Colonels Haſlett and Potter, two brave and excellent officers, from Delaware and Pennſylvania; Captain Neal, of the artillery; Captain Fleming, who on that day commanded the ſeventh Virginia regiment; and five other valuable officers were alſo among the ſlain.

"On the appearance of day-light, Lord Cornwallis diſcovered that the American army had moved off in the night; and immediately conceived the whole plan which had been formed by Waſhington. He was under extreme apprehenſions for Brunſwick, where magazines of great value had been collected; and where, it has been underſtood, the military cheſt, containing about ſeventy thouſand pounds, was depoſited. Breaking up his camp, he commenced a rapid march to that place, for the purpoſe of affording it protection; and was cloſe in the rear of the American army before it could leave Princeton.

"General Waſhington now again found himſelf in a very perilous ſituation. His ſmall army was exhauſted with extreme fatigue. His troops had been without ſleep, all of them one night, and ſome of them two. They were without blankets; many of them bare-footed, and otherwiſe very thinly clad. He was cloſely purſued by an enemy very much ſuperior in point of numbers, well clothed, not haraſſed by loſs of ſleep, and who muſt neceſſarily come up with him before he could accompliſh his deſigns on Brunſwick, if any oppoſition ſhould there be made to him. Under theſe circumſtances, he very wiſely determined to abandon the remaining part of his original plan; and, having broken down the bridges over Millſtone Creek, between Princeton and Brunſwick, he took the road leading up the country to Pluckemin, where his army were permitted to refreſh themſelves, and to take that reſt which they ſo greatly required. Lord Cornwallis continued his march to Brunſwick, which he reached in the courſe of that night. General Matthews, who commanded at that place, had been greatly alarmed; and, while he paraded his troops for defence againſt the American general, whom he expected, he alſo uſed the utmoſt induſtry in guarding againſt the worſt, by removing the military ſtores to a place of greater ſafety.

"The ſufferings of the American army had been ſo great, from the ſeverity of the ſeaſon, and the very active ſervice in which they had been engaged; their complaints, eſpecially on the part of the militia, were ſo loud; their numbers were reducing ſo faſt, by returning home, and by ſickneſs; that General Waſhington found it impracticable immediately to proſecute further offenſive operations, and deemed it abſolutely neceſſary to retire to Morris-town, in order to put his men under cover, and to give them ſome remoſe.

"The bold, judicious, and unexpected attacks made at Trenton and Princeton, by an enemy believed to be vanquiſhed, had an influence on the fate of the war much more extenſive in its conſequences than, from a mere eſtimate of the killed and taken, would be ſuppoſed. They ſaved Philadelphia for the preſent winter; they recovered the ſtate of Jerſey; and, which was ſtill of more importance, they revived the drooping ſpirits of America, and gave a ſenſible impulſe to the recruiting ſervice throughout the United States."

The view of *Mount Vernon* has a characteriſtic portrait of *General Waſhington*, executed with ſingular fidelity.

CIII.—BROOKIANA; *Anecdotes of the Life of* HENRY BROOKE, *Eſq. Author of the Fool of Quality, Guſtavus Vaſa, &c. 2 Volumes. 10ſ. 6d. Boards.*

WE preſent our readers with the following Rules of Criticiſm, extracted from this eccentric, but entertaining publication; and which ſome modern reviewers ſeem to have ſtudied with great attention.

"NEW ART OF CRITICISM.

"Rule I.—*Find fault, at firſt ſight, with every thing that is publiſhed.*

"This is the firſt and fundamental rule of all good criticiſm; and is itſelf founded upon ſolid reaſons. For,

"1ſt, It is ten to one but you are in the right; there being at leaſt ten bad productions, publiſhed every day, for one good one.

"2dly, Becauſe finding fault implies a plain ſuperiority of genius.

"And what a fine light is a man ſeen in, when his genius is aſſerting to itſelf a bold ſuperiority over every other! The very claim is a good foundation of eminence. Claim boldly, then, for criticiſm hath, in this reſpect, ſome reſemblance to calumny; and, indeed, is ſo like it, in ſome hands, that none but an adept can diſtinguiſh them: and you know the rule, *calumniare fortiter*, (in Engliſh, 'criticiſe boldly'), and ſomething will certainly adhere, both to yourſelf and to your author.

"Beſides this, ſuch a conduct is a ſtrong preſumption of right; for who can be imagined ſo impudent as to claim without ſome colour of juſtice? and, therefore, the bolder your claim is the better; if you are importunate and perſiſt, it is ten to one but the world, and the author too, will be glad at length to compound the matter with you, upon the foot of an Iriſh reference, and give up one-half to ſecure the reſt.

"It is a clear conſequence from this rule, *you ſhould always cenſure thoſe works moſt which are thought moſt to excel.*

"For, ſince criticiſm is a claim of ſuperiority, what have you to do but to raiſe your claim as high as you can, ſince your right muſt always riſe with it? No man ever arrived to any great eminence above others from the back of an aſs, or the ſhoulders of a dwarf.

"A true critic is a true emblem of that ſtately, majeſtic animal, who never fails to raiſe his creſt, burniſh his gills, diſtend his dewlap, and ſwell his breaſt with a becoming indignation, at the firſt ſight of that proud colour that ſhould pretend to glow with more glory than his own; and no wonder if, in conſequence of ſuch a preſumption, he aſſault it with a juſt degree of rage, and, if poſſible, trample it under foot.

"*Obj.* But, here it may be objected, what if you ſhould be in the wrong?

"*Anſ.* To this it is obvious to anſwer; 1ſt, That, if you are early in your outcry, it is ten to one but you damn the thing at once; and then you can never be in the wrong.

"2dly, If you ſhould be found ſo in the end, it is ten to one but the diſcovery comes too late. For the author may be dead or undone long before; and ſo may you too.

"3dly, It is time enough to retract when the reſt of the world are convinced. Your delay will be placed to the account of your delicacy.

"And, in the laſt place, if the worſt comes to the worſt, ſingularity has a thouſand advantages to balance every thing that can be ſaid againſt it. There are inſtances wherein one man has been known to be in the right againſt all the reſt. Athanaſius *contra mundum*—is a glorious ſituation

Victrix cauſa Diis placuit, ſed victa Catoni.

"Rule II.—*If you find it too adventurous to pronounce any writing ſtuff and nonſenſe at firſt ſight, yet you may, ſafely enough, ſhrug your ſhoulders, and cry,* 'There's nothing in it.'

"Reaſon may be anſwered with reaſon, and diſputes are dangerous, it is impoſſible to ſay where they will end; but a *ſhrug* is a ſhort deciſion; a ſhrug can never be baffled; a ſhrug is abſolutely unanſwerable.

"Suppoſe, for example, that the queſtion were about the merits of a dialogue juſt publiſhed, and your adverſary ſhould inſiſt, that it had every thing requiſite to the beauty and perfection of that kind of writing; and ſhould talk to you of politeneſs, and eaſe, and elegance, and God knows what—let him talk, and do you

ſhrug. If he ſhould grow noiſy and pedantic upon you, and pretend to quote examples from Plato, and authorities from Ariſtotle; let him quote on, and do you ſhrug. If he ſhould perſiſt in his impertinence, why then you have nothing to do but to ſhake your head, and echo his laſt words; 'Ay, ay, Plato, Ariſtotle, eaſe, elegance,' &c.—then ſmile a little, and by degrees laugh out loud—my life for your's, his buſineſs is done at once. He hangs his ears, and you hear no more of him.

"I conſider a critic as a creature with what phyſicians call a ſtrong acid upon his ſtomach; which, though it helps digeſtion in general, yet it is too apt to turn ſome of the nobleſt foods and perfect nouriſhments of nature into choler and indigeſtion. And, therefore, when critics cenſure any performance whatſoever as empty and inſignificant, all that can be fairly inferred from thence (if they ſhould chance to be miſtaken) is only this, that there is nothing in it to their taſte, or nothing but what they diſlike and diſreliſh; and under this diſtinction a good critic may, very often with a good conſcience, pronounce upon the beſt performance in its kind, that *there is nothing in it.*

"Rule III.—*If your own authority is not ſufficient to quell oppoſition, and carry your point; why then, two or three of you join forces, and call yourſelves the* WORLD—*and the work is done.*

"This is every day experienced with wonderful ſucceſs. Lady A. tells her friend, 'That the *world* makes very free with Mrs. M.'s reputation: that lady L. was ſeen to ſlip into her houſe in the duſk of the evening, and ſteal out again at one in the morning.' The friend tells the ſame ſtory to her couſin, the couſin to her ſiſter; and all four hurry to all their viſits that very evening, to tell the news, under the ſtrongeſt ties of ſecrecy. And, in four-and-twenty hours, Lady A. is juſtified in every ſyllable ſhe ſaid: for, by that time, the *world* does really make very free with Mrs. M.'s reputation; and ſhe is infamous from that moment.

"But ſuppoſe people ſhould be provoked, and tell you plainly, 'That any one of thoſe things which you vilify, hath more wit and ſenſe, and fine thinking in it, than all the critics in the world could extract from all the writings of you, and all your aſſociates put together.'

"Why, the anſwer is eaſy. What is that to the purpoſe? What have critics to do with wit and excellence in writing? A critic is a judge; and every one knows, the buſineſs of a judge is, not to draw up pleadings, but to pronounce ſentence.

"Rule IV.—*Write nothing but ſatire; and ſatirize none but perſons of eminence.*

"Satire is the pine-apple of wit; it hits every taſte; and contains every flavour of every other fine fruit of the mind. The vicious and the worthleſs are glad to ſee others brought down by it ſome degrees nearer to their own demerit or inſignificancy: the wiſe and virtuous, unhurt, take a ſecret pleaſure in the untarniſhed luſtre and untainted purity of their own perfections; and the rabble are delighted with it, becauſe it humbles their betters, and brings them nearer to their own level. And, indeed, ſatire is, next to death, the greateſt leveller in this world; and, like that too, can rob every man living of every ability, every beauty, and every bleſſing of life; and not only ſo, but can convert them all into deformity and filth; and by that means make the moſt amiable creatures alive the abhorrence of their beſt friends.

"The luſtre of an high reputation diffuſes ſuch a light round the owner, as gives the ſatiriſt (together with the aid of his own obſcurity) all poſſible advantages of wounding him wherever he likes. In vain does the mangled wretch roar out, like furious Ajax in Homer, for *day* and the *enemy:* he, ſafe under the protection of Nox and Nemeſis, his guardian deities, ſlinks, like Milton's hero, to his covert, after he hath wrought his vengeance; and waits the reſult of his bold achievement in ſecurity and ſilence.

"Rule V.—*Whatever head you ſatirize any man under, before you have done with him, be ſure you charge him home upon the head of* VANITY.

"For this is a vice which is ſure to render every man living obnoxious to every other. And, as every man

living hath a competent portion of it, every man will admit your charge with eaſe, and join in it with eagerneſs.

"If the vanity you cenſure is ill-founded, it will raiſe the more indignation in your readers; if otherwiſe, the merit of the author will make it eaſier credited, eſpecially if he be a candidate for fame, or honour, or preferment of any kind; for then the whole crew of competitors will be ſure to join in the cry againſt him. And, indeed, nothing more infallibly incenſes any number of men againſt the moſt deſerving man in the world, than the leaſt appearance or ſuſpicion of a claim of merit; as nothing can be more provoking than to boaſt one's wealth among a brotherhood of beggars.

"Rule VI.—*Whenever you cenſure any man's works or abilities in* one *character, be ſure, if poſſible, to praiſe him and them in* another.

"For example; if the ſame man ſhould riſe to reputation both in preaching and in poetry, when you cenſure his poetry, be ſure to praiſe his preaching at the ſame time; for this will give your criticiſms the character of candour and ingenuity, and your cenſure will, by that means, carry more weight: add to this, that there are twenty good judges of preaching for one that pretends to any judgment in poetry; ſo that an attempt upon him that way, where you might meet a thouſand people in every quarter of the town to contradict you, would but deſtroy your own character inſtead of hurting his.

"And what greater injury does a good critic to any man, in denying him different excellencies, than what nature herſelf hath done to almoſt all mankind. Are not different talents, almoſt always, draw-backs upon one another? Is not a fine imagination often obſerved to hurt the judgment? and wit to impair the memory? how unreaſonable is it in any man to pretend to excel in many things, when ſo few excel in any one! Will it be any imputation upon any man now alive, to ſay that of him which was undoubtedly true of Cicero? I own, indeed, that the warmth and elegance, and elevation of a true poetic ſpirit are ſome of the nobleſt ingredients in the compoſition of a chriſtian orator: what then? are not many men deemed good preachers without them? what have you to do, then, but to follow nature, and give good qualities as ſparingly as ſhe uſes to do.

"If it ſhould be ſtill urged, 'That ſome of this ſame man's poetic works are allowed to excel; and that he hath received high compliments on that head from ſome of the greateſt geniuſes of the age, &c.'—What is all that to you? Do you ſtill follow nature, and beſtow with a wiſe frugality. But, above all, be ſure you never beſtow, but under this prudential direction: let the bounty of your praiſe always go firſt, like Pharaoh's years of plenty; and then, let the frugality of your criticiſm follow faſt after, like the years of famine, even though it ſhould be thought to devour all that went before it.

"*Give* and *take*, is the great critical aphoriſm; that is, *give all that you* cannot *take away, and take away all that you can.*"

The following account of Mrs. Grierſon is intereſting.

"Mr. Brooke has celebrated the learning, piety, and virtue, of Mrs. Grierſon, in a poem which he wrote on the Art of Printing. This lady was born in the city of Kilkenny. Such is the vanity of man, that he thinks he pays a ſufficient compliment to woman, when he ſays, ſhe has a maſculine mind, when, in truth, it is known that there are many females on record, who have rivalled the lords of the creation in every branch of ſcience, and department of learning. In this conſtellation the name of Mrs. Grierſon will ſhine with encreaſing luſtre. Her father obſerved, that his daughter, while yet a child, was very fond of books, and notwithſtanding his circumſtances were narrow, he was determined to furniſh her with all thoſe that he thought were ſuited to her years; but he ſoon found, to his great joy, that her capacity was not to be meaſured by her years, it flew before them; and that her genius and inclination would triumph over every difficulty, even without the aid of a maſter. In a time that is almoſt too ſhort to be mentioned, ſhe was allowed, by competent judges, to be a perfect miſtreſs of the Greek and Roman tongues; and

whilſt other young women were proud of carrying the keys of cloſets, &c. ſhe carried the keys of ſcience, which ſhe unlocked and ſurveyed, not with a tranſient eye, but with the warmth and conſtancy of one that fell in love with their beauties, and could duly appreciate their charms, ſo that all her attainments may be ſaid to have been dictated by nature, aided by laudable curioſity and induſtry. She was early married to George Grierſon, eſq. the king's printer. As he had a good library, ſhe had an opportunity of indulging her literary purſuits. Her edition of Tacitus, which was dedicated to lord Cathcart, when lord lieutenant of Ireland, is a proof of her critical knowledge of the Latin tongue: ſhe alſo publiſhed an edition of Terence, which ſhe inſcribed to his lordſhip's ſon. She died at the age of twenty-ſeven, in the year 1733. For ſome time before her death, as often as an ill ſtate of health would permit, ſhe was preparing the works of Salluſt for the preſs. This copy, with a number of MS. notes on the margin, came to the poſſeſſion of lord George Germaine, and was purchaſed by the late John Wilkes, eſq. at the ſale of his lordſhip's books, in Pall Mall, ſome years ago. Mr. Wilkes ſpoke very highly of t, and conſidered it as one of the moſt valuable books in his claſſical collection. Mrs. Grierſon wrote ſeveral pieces of Engliſh poetry, that found admirers in every reader, but as they did not pleaſe herſelf ſhe burnt them.

ADVERSARIA.

BIBLIOGRAPHICAL, PHILOSOPHICAL, LITERARY, AND MISCELLANEOUS, INCLUDING NOTICES RELATING TO THE FINE ARTS.

MR. W. H. IRELAND has in the preſs a Novel, in 4 volumes, which he will publiſhed in a few days.

The Rev. J. Evans, of Iſlington, is about to publiſh an Account of Worthing and its Vicinity: it will be ornamented with an engraving and a map of the country adjacent.

A new edition of the Works of Dr. Jortin, given from the author's own copy, and from manuſcript papers communicated by his deſcendants, and ſuperintended by gentlemen of eſtabliſhed reputation, will be publiſhed early in the enſuing year.

A new edition of Drunken Barnaby's Four Journeys to the North is in the preſs and will ſhortly be publiſhed, ornamented with vignettes.

Captain Sowle, in the American ſhip Palmyra, is ſaid to have diſcovered, in November 1802, an iſland in the South Seas, not previouſly ſeen, which he named *Palmyra Iſland*; it did not appear to be inhabited, but cocoa-nuts of very large ſize were in great abundance; and fiſh of various kinds, in large ſhoals, ſurrounded the land.

Mr. Holden will publiſh in a few days, in 2 or 3 vols. octavo, a liſt of all the Merchants, Bankers, Tradeſmen, &c. in every town in the United Kingdoms, forming the moſt complete Directory of the kind hitherto publiſhed.

Dr. Vincent has in the preſs and will ſhortly publiſh the Second Part of his valuable Tranſlation of the Periplus of the Erythrean Sea.

An Illuſtration of the Works of Robert Burns; conſiſting of 22 plates, repreſenting the local Scenery deſcribed in the Poems of that original and highly-eſteemed Scottiſh Bard, is preparing for the preſs. The drawings and engravings are by Meſſ Storer and Greig, and include ſ of the boldeſt and moſt ror ic Scenery in North Britain.

A new edition of Mr. Daniel's Rural Sports, with ſome new plates, and many additions, is in the preſs.

A new review, under the title of the "Eclectic Review," is intended to be publiſhed on the 1ſt of of January. The editors propoſe to *ſelect* thoſe departments of Literature which are moſt generally intereſting and inſtructive, and to take proper notice of all new works on the ſubjects thus ſelected. The refuſe of the Circulating Library and of the Theatre will be excluded.

Mr. Sowerby has juſt publiſhed the firſt number of a new periodical work, called Exotic Botany, conſiſting of coloured figures, and ſcientific deſcriptions of ſuch new, beautiful, or rare Plants, as are worthy of cultivation in the gardens of Great

Britain. With Remarks on their qualities, hiſtory, and requiſite modes of treatment; By Dr. Smith, Preſident of the Linnæan Society. He has alſo juſt commenced a new Periodical Work, called, the Britiſh Miſcellany: or coloured figures of new, rare, or little known animal ſubjects, not before aſcertained to be inhabitants of the Britiſh Iſles; and chiefly in poſſeſſion of the author.

The firſt volume of Britiſh Mineralogy, by the ſame gentleman, is juſt completed.

Mr. Baſil Montagu will publiſh, ſome time in December, the ſecond volume of his Digeſt of the Bankrupt Laws.

The third number of Mr. Andrews's Heathery, or Monograph of the Genus Erica, with coloured engravings, will appear on the firſt of December.

Dr. Maton, the intimate friend of the late Dr. Pulteney, who bequeathed to him his botannical MSS. has nearly ready for the preſs a new edition of the Dr.'s General View of the Writings of Linnæus; to which will be prefixed, ſome Memoirs of Dr. P.

Mr. Godwin, well known to the world as the author of Caleb Williams, will ſhortly publiſh a novel in three volumes, under the title of Fleetwood.

On the 22d of November, Henry Thomſon, Eſq. received his diploma, at a general meeting of the Royal Academicians, he having been elected an Academician, and approved by his Majeſty.

The Rev. Dr. Glaſſe, F. R. S. and Chaplain in Ordinary to his Majeſty, has in the preſs, in two volumes 4to, a new edition of Burkett's Expoſition of the New Teſtament. The pious and learned editor has been at much pains in correcting obſolete language, and in ſtriking out all controverſial paſſages, which occupied conſiderable ſpace in the original. For the purpoſe of making this edition more extenſively uſeful to fathers, and maſters of families, Dr. G. propoſes to publiſh it alſo in one ſhilling numbers.

CORRECT LIST

OF

NEW PUBLICATIONS FOR NOVEMBER.

ANATOMY.

THE Anatomy of the Human Body, containing the Anatomy of the Viſcera of the Abdomen, the Parts in the Male and Female Pelvis, and the Lymphatic Syſtem, with an Appendix. By Charles Bell, vol. 4, royal 8vo, 15s. boards.

ANTIQUITIES.

St. Germains.—The ancient Cathedral of Cornwall ſurveyed. By John Whitaker, B. D. 2 vols. 4to. 2l. 2s. boards.

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